









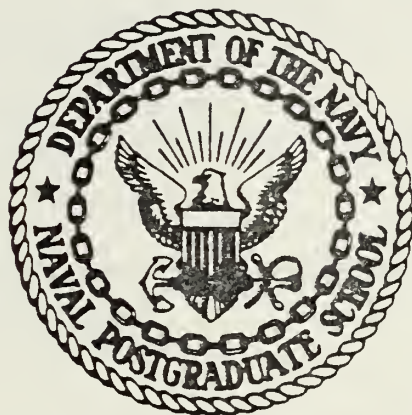






# NAVAL POSTGRADUATE SCHOOL

Monterey, California



## THESIS

A STUDY OF CROSS-CULTURAL ADJUSTMENT  
OF INTERNATIONAL STUDENTS AT THE  
NAVAL POSTGRADUATE SCHOOL

by

Ngandani

March 1977

Thesis Advisor:

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It also provides data for both internationals and American students with their respective families, the sponsors and international committee, the faculty of the school and the community of Monterey, to understand each other better, therefore improving cross-cultural relations. It also supplies information to support an orientation process which is provided to the students in their home country prior to entry into the Naval Postgraduate School.



A Study of Cross-Cultural  
Adjustment of International Students  
at the Naval Postgraduate School

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## ABSTRACT

International officers at the Naval Postgraduate School stay with their families for a longer period than is the case in other education centers in the United States. They and their families are faced with making the transition to living in a new and perhaps strange environment.

This study of cross-cultural adjustment of international students describes the development of a social distance scale which is designed to measure the willingness to engage in social contact with host country nationals through a 72 item questionnaire concerning personal interaction by internationals with host-country nationals. The distribution of judgements resulting from this procedure served as the basis for establishing a social distance scale through use of the Thurstonian method of successive intervals. A 25 item social distance scale is then developed and from scores on the scale, the extent of adjustment to living in the United States is inferred.

It also provides data for both internationals and American students with their respective families, the sponsors and international committee, the faculty of the school and the community of Monterey, to understand each other better, therefore improving cross-cultural relations. It also supplies information to support an orientation process which is provided to the students in their home country prior to entry into the Naval Postgraduate School.



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## I. INTRODUCTION

### A. PURPOSE OF STUDY

Lambert and Bressler, in their study of Indian students at the University of Pennsylvania, found that each "arrived at New York intent upon three roles which he consciously and actively worked to create: he was to be a student, a tourist and an unofficial ambassador." [5]

Upon arriving in a foreign country, the curiosity of the foreign student is aroused, he likes to know more about the country, the people, the language, and important features that exist in that country. He feels like a tourist although his main mission is to study abroad as an exchange student. His national identity suddenly becomes an important factor. It is as if he discovers his own country while abroad. People see him as a foreigner, and he must act and adjust according to that. Frequently people ask him about his country, and he certainly feels that it is his duty to explain as well as possible. He becomes an unofficial ambassador of his country. Finally he arrives at the university or college to which he was sent. He gets acquainted with the academic life. He is then aware that he has to succeed in order as best as possible to serve his country. He also hopes to get a better position and transfer the knowledge he obtains to his people. He becomes a serious student. Most students who come to a foreign country feel this way, although there are few exceptions, such



as neglecting study in order to get a better job in the foreign country than as it was in his own country, etc.

With all his three roles, he interacts with people who are alien to him, who have different perceptions than his, different language, different habits, different foods; in other words, who have a different culture. Although it is possible that he has read about the history and culture of the host country and its people, some or many peculiarities arise which he does not expect, sometimes favorable, sometimes not, sometimes so severe that he experiences the so-called "cultural shock." Sometimes it is smooth and gentle.

If later on this same person is sent to another country it is most likely that he will go through the same cycle of experiences again. Perhaps the culture shock will not be felt so severely as was the first time, because he has more experience. But in both cases adjustment of attitudes must take place if he is to survive and to finish his study successfully. If he comes back to his home country with good memories some observers feel that these feelings will prevail over bad memories.

As for the host students in an education center with relatively many foreign students, the existence of these foreigners and their various cultures may also have an impact upon them. They interact with other groups of foreign students of many diverse cultures. They also to a certain degree have to adjust with these various cultures and sometimes also experience culture shocks.



All of the above make us aware that in general it will be favorable to have cross-cultural relations that enhance and improve the study of both host and foreign students in order to get their main mission done. More important than that is that both host and foreign students act as links between cultures so that a better understanding will be built. In this shrinking world of today no one nation can remain isolated against another.

This study tries to develop some means that detect various perceptions so that we can remedy these linkages toward better cross-cultural relationships.<sup>1</sup>

#### B. IMAGE OF AMERICA

In the following chapters, we shall be considering the foreign students' responses to questionnaires which relate to the welt-anschauung (translate: world view) of the American people and their government as seen by them. Some items in the welt-anschauung may never have happened before and never will happen for many internationals. In this study some were purposely created based on what we read in newspapers and other literature throughout the world in order to get a meaningful perception of how foreign students actually feel if they are opposed to these "difficult" and "sensitive" situations.

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<sup>1</sup> Sincere thanks are extended to the international students, Professor Woods, CDR R.A. McGonigal, Mr. H.W. Doelman, and anonymous reviewers whose associations significantly improved the quality of this thesis.





I would like to stress that this study has no intended reference to politics, does not intend to insult or deteriorate good mutual understanding. The questionnaires were set up based on a study of the literature for the sole purpose of academic research.

There should be a good deal of practical, and perhaps theoretical, value in knowing what foreign students see in America, how different it seems to them from their own countries, how well they like these perceived features of the United States. These findings should have considerable generalizing power, since they represent the opinions of students from so many different countries and backgrounds. [11]

For many international students, the very first impression in his perception with America is a perception of the white race. He knows from books and information that actually America consists of a multi-racial people. But his very first perception is that he will interact with people of the white race and so expects white culture which is perceived to be similar to North European and Canadian culture.

We do define race according to the popular definition. In the United States, a person's race is often self-determined, although influenced by family tradition, custom, and the law. Most often, it is delimited by one's skin color. In certain states one's race is legalistically determined by the race of one's ancestors. The popular definition of race includes only six classifications: white (or Caucasian), black, American Indian, Oriental, Asian Indian, and brown (or Melanesian). [7]



Other perceptions of the international students are that America is a highly technological country with huge capitals, a super power but also highly vulnerable at the present time in energy like oil, a wealthy nation with one of the higher incomes per capita (although not the highest as it used to be). America is also an English-speaking nation and its main religion is Christianity.

The values of Americans which are perceived by foreign students are that: Americans are very democratic, individualism is highly valued, the American government takes great care of its citizens (although they commit mistakes on foreign soil), American culture is felt to be very near European and Canadian cultures, except that Americans are more informal. Many foreigners see American culture as they saw it in the movies, i.e., portrayals of cowboys and gangsters, and that in the end the long arm of law is the winner.

Other perceptions which are worthwhile to mention are: people treat each other as equals, but that there are also severe racial problems which until now are not yet settled. In the economics area, Americans are perceived as ambitious as can be seen in phrases like: time is money, and, another day another dollar. America's landscape is perceived as a very vast country with sky-scrapers and super-highways but also with deserts and high mountains, lacking in cultural cities like Paris, Rome, London, Brussels, and lacking in beautiful traditional cathedrals, although America possesses some ultra modern ones.



But, all in all, foreigners like to go to America because the prospect of higher education is more attainable than in many other developed countries. Moreover, the possibilities of obtaining a grant aid or scholarship are also better in America.

Such stereotyping is common with all groups of people. (See Gordon Allport's "The Nature of Prejudice"). It is not the purpose of this study to encourage prejudice--rather, to understand it.





## II. REVIEW OF THE LITERATURE ON CROSS-CULTURAL RELATIONS

Study abroad and cross-cultural education in general have a long history which reaches back into the classical antiquity. As early as the 4th century BC there were groups of foreign students at the schools of philosophy and rhetoric in Greece (Capes, 1922 and Walden, 1909), and a Chinese historical text mentions that in the 639 AD the Emperor T'ai Tsung established an institute of higher education to which students from the "barbarian peoples" came until the number of such foreign students was more than 8,000 (Mandelbaum, 1956, p. 45).

In the 4th century AD the Theodosian Code had to include special provisions dealing with the admission of foreign students and their eventual return home, so great were the political and administrative problems caused by the large numbers of foreign students flocking to Rome (Walden, 1909).  
[11]

In view of the significance of cross-cultural education and the dynamics of cross-cultural interaction, it is amazing how long it took scholars to take an interest in the problems connected with it. With a few exceptions, research in the social sciences neglected the questions arising from study abroad until 1950, when the rapid expansion of international exchange of persons, particularly in the U.S.A., gave rise to a mass of administrative and personal problems which required



an intensive analysis and evaluation of the exchange programs (Smith, 1956/b).

It is also interesting to note Cormack's remarks about the study of cross-cultural education:

We are, unfortunately, not able to judge the significance of the "more than one hundred dissertations and Master's theses on the problems of foreigners studying in the U.S.A." as most of them have not been published.

The authors of these theses and dissertations are mainly foreign students (principally Asians) and they deal mainly with the local living and study conditions of their fellow-countrymen at a certain American university. (Cormack, 1962)

We may assume that the results of these studies have already been evaluated for either research or practical purposes, and would therefore recommend that an analytic summary be made of this group of research studies.

In order to further obtain a better view of some values held by Americans and/or foreigners which according to some authors are important in cross-cultural relations, the following remarks of various authors are cited.

Robert J. Foster, in his book, "Examples of Cross-Cultural Problems Encountered by Americans Working Overseas: An Instructors' Handbook," wrote the following about cross-cultural relations between Americans and non-Westerners: "The nature of the cross-cultural problems encountered by Americans overseas can be viewed as a conflict between two fundamental values held by two groups of people. The misunderstandings on problems occur because members of each group assume their own values, especially those that tend to be acted upon unconsciously, are correct and natural." A classification



of American values that frequently contrasts with those of non-Westerners is given below. The classification system is not intended to be exhaustive, nor is it always theoretically consistent. It represents only an attempt to roughly classify some American value configurations that are likely to be underlying factors in the problems and misunderstandings encountered by United States personnel in the developing nations.

1. CONTROL OF ENVIRONMENT. The view that man works with nature rather than attempting to conquer it is typical of the thought of many non-Western people. In contrast, Americans usually conceive of nature as something to be conquered and made over to suit man's needs. Activity is good, and any sign of reluctance to get things done is interpreted as laziness or indifference.

2. PROGRESS. Change is an inevitable part of life, but societies differ in their attitudes toward it. Non-Western people tend to seek guidance from tradition. Americans are more inclined to make decisions in terms of anticipated future needs and to view change and material progress as unquestionably desirable.

3. MATERIALISM. Americans typically seek tangible results that can be measured. Many non-Western people are more likely to find satisfaction in aesthetic or spiritual values, which involve the inner experience of man. The American delight in gadgetry is indicative of a tendency to make evaluations in materialistic terms and to stress material





comfort and convenience. It is not unusual for Americans to judge other nations by the presence or quality of their plumbing or refrigerators. It is no accident that the American attitude stresses control, progress, and materialism; the three interact with one another to constitute the dominant behavior of American society.

4. PERSONAL SUCCESS. Social status is a key dimension in understanding human motivation. The members of a traditional society are likely to regard their role as fixed and not to be questioned. In contrast, an American's self-esteem is closely tied to his personal success and "natural" desire to get ahead.

5. AUTONOMY. In American culture, where individual responsibility is stressed, it is assumed that the locus of decisions resides within the individual. In non-Western cultures decisions are more likely to be made by a group or someone in authority.

6. PURITANISM. The preserving influence of the Puritan ethic--asceticism, responsibility, impersonal service to others--is in sharp contrast to the more relaxed, spontaneous, personalized behavior of non-Western people.

7. MORALISTIC ORIENTATION. The characteristic missionary spirit of Americans, to win over other people to their way of thinking, and the tendency to evaluate conduct in universal impersonal terms, is a direct manifestation of a strong moralistic attitude. Americans, more than most people, tend to make clear-cut ethical distinctions that affect all equally



and impersonally. People in non-Western nations tend to have less urge to convert others or to make impersonal moral judgements.

8. HUMANITARISM. Interwoven with the American's moralistic and egalitarian outlook is a motivation of generosity and compassion, which is particularly noticeable in his supportive attitude and action toward the underdog. In developing nations the motivation is also present, but it is in a more paternalistic, more personal, less organized form. This lack of concern with those outside one's family or clan is an aspect of other cultures of which Americans are inclined to be critical and which they are often unable to accept.

9. TIME ORIENTATION. Americans are generally very time conscious, treating time as a material thing ("time is money") that should be actively mastered, or manipulated to the best advantage, out of a sense of duty and responsibility (note the interrelationship with other American values). Non-Western people usually measure time on a completely different scale, regarding it as a phenomenon to be passively accepted and, perhaps, enjoyed. Often the cycles of time are revered--not managed.

10. SCIENTIFIC ORIENTATION. The Western world has adopted empirically-based scientific reasoning as the unquestioned way of understanding the physical world. The people of other nations are not necessarily ready to accept scientific explanations as the most rational or to recognize the need for careful disciplined analysis. Having had less experience with



the fruits of scientific knowledge, they are more likely to be guided in their behavior by mysticism, authority, or tradition.

11. INTERPERSONAL BEHAVIOR. Cross-cultural misunderstandings often result from a difference in the rules of interpersonal relationships as evidenced in such things as etiquette, gestures, mannerisms, and demeanor. This category reflects various other values that are manifested primarily in direct person-to-person interaction. Perhaps the most frequent cause of difficulty is the contrast between the American's openness and friendliness on brief acquaintance and the formality and face-saving manner of many other peoples, especially those of Oriental culture. [12]

Richard T. Morris, in his book, "The Two-Way Mirror," pointed out: "The foreign student who comes to America will suffer severe status changes which will affect his self-image. These changes will be important in determining the way and the degree to which the student adjusts to his American experience. Of the various kinds of status elements that help to make up the self-esteem picture, national status, because it is newly introduced as an important personal variable, will be particularly important in determining the foreign student's adjustment....When a man enters the army or a mental hospital, he is the same person, but the characteristics by which he is judged and those who judge him are radically different."

Richard T. Morris further wrote: "To many Scandinavian students, Americans as individuals and the United States as





a political unit displayed childish or immature behavior. Americans, they thought, are noisy, enthusiastic, demanding of immediate gratification, superficial in social relations, optimistic, carefree and careless, unrealistic, lacking in social responsibility, impulsive, aggressive, and violently active....At the same time, the Scandinavians described Americans as strongly democratic: egalitarian in social relations, friendly, generous to those in lower position, having a loose social structure allowing for easy mobility and blurred social distinctions, lacking a belief or faith in authority, demanding individual liberties and freedom from restriction....Thirdly, they viewed Americans as highly materialistic: interested in immediate pragmatic results, practical in thought and feeling, efficient, quick, motivated toward achievement and success in terms of producing more and better material goods and mastery of the physical world, non-intellectual, non-traditional, non-family-oriented, non-contemplative, having no interest in the past. These are merely statements of perceptions....We assumed a general uniformity among foreigners' view of the United States, and guessed that the themes discovered in the study of Scandinavian students should be applicable to all foreign students, with minor variations in detail." [11]

Ingrid Eide, in her article, "The Impact of Study Abroad," points also to the importance of National Status. "There is a paradox in international communication and contact, because it is in this international context that a person may experience





a revocation of his national status. In his home country, it (his national status) does not differentiate him from other people; abroad it quickly becomes the most frequent basis of identification, of association and lack of association. This increased salience of national background gives additional theoretical support to the frequent use of nationality as a major independent variable in research on foreign students." She further wrote, "Eight groups of factors have been suggested as relevant for an understanding of the differences found between students of different nationality and cultural background. The students had studied in the same country abroad; nevertheless, the difference between the groups was maintained. Regardless of which country was their host, the three groups of students retained their characteristic responses, reflecting their different adjustment patterns." She added, "Still another point should be mentioned, and it relates to what was said about alternative adjustments. It seems possible for individuals to adopt professional orientations, or secondary relations-oriented adjustments, without adjusting more generally to foreign culture."

Jeanne Watson and Ronald Lippit, in their book, "Learning Across Cultures, A Study of Germans Visiting America," wrote the following: "First, there are the tensions associated with finding a place for oneself, as an individual and as a representative of one's own nation. The foreign visitor finds that everyday living suddenly presents many problems. He needs to discover friends who will help him find his way



around, and who will offer him the warmth, acceptance, and understanding which are necessary for his personal security. At the same time, he needs to be sure that his new friends have the proper respect for his national heritage. With these first problems solved, the visitor is free to become involved in the program of activities and learning for which he came. Here again, he may find an unexpected amount of emotional tension. There may be difficulties in his relationship with the program coordinator, or with other authoritative representatives of the host culture.....Running through the visit is the necessity for maintaining simultaneous membership in two different cultures, with the continuous problems of translation which this involves. Ideas, attitudes, and procedures must be viewed in one context, and then mentally transferred to another. An examination of these potential difficulties in the learning process was not intended to imply that foreign visits are always tense and difficult. On the contrary, they can be immensely stimulating and satisfactory. It is our belief, however, that the success of a foreign visit can be greatly increased if adequate procedures exist for recognizing and helping with the more disturbing emotional tensions. When difficulties do arise, the trainer is in a stronger position if he can be diagnostic about the symptoms of tension and if, having made a diagnosis, he knows what to do about it." [6]

After exploring the importance of American values, in contrast to the diverse cultures of foreigners, we should look to the literature which tries to locate certain personal



interaction variables in order to influence successful communication in cross-cultural interaction. R.A. McGonigal wrote: "Drawing from the findings of Peace Corps trainers, military advisors and those agencies sponsoring personnel attempting cross-cultural interaction overseas and/or domestically, this study sought to isolate the personal interaction variables having the most influence upon successful communication. These variables, in order of importance, were found to be: self awareness, empathy, tolerance for ambiguity, self esteem, low dogmatism, high regard for the value of equality, the ability to communicate non-verbally, genuineness, warmth and openness." [8] The meaning of these variables is included in Appendix A.

SUMMARY: As a result of the review of the literature of cross-cultural relations, certain fundamental values held by Americans surfaced which might be the cause of conflict between these fundamental values held by Americans and those held by the foreigners.

It was found that these values which may cause differences between Americans and foreigners could be grouped into three main themes pertaining to American life. The three main themes in American life are: American values on materialism, on social status, and on depth of inter-personal relationships.

American values on materialism are basically: control of environment, material progress, puritanism, treating time as a material thing, scientific orientation.





American values on social status are basically: egalitarian in social relations, having a loose social structure, lacking in belief or faith in authority, demanding individual liberties and freedom.

American values on depth of inter-personal relationships are basically: high regard for individual rights, quickly-formed friendships lasting for a short time, non-traditional, non-family-oriented. Locus of decisions resides within the individual, having little interest in the past.

On the other hand, one factor which will be particularly important in determining the foreign student's adjustment is his National Status.

Other factors which we cannot neglect in foreign students' adjustment to foreign culture are the characteristics of different nationalities maintaining their characteristic responses toward a certain host country and so reflecting their different adjustment patterns. It also seems possible for individuals to adopt a professional orientation without adjusting more generally to foreign culture. There are tensions associated with finding a place for oneself as an individual and as a representative of one's own nation. To be sure that his new American friends have the proper respect for his national heritage ideas, attitudes, and procedures must be viewed in one context and then mentally transferred to another.

Misunderstanding in cross-cultural relations may also be related in less successful communication. R.A. McGonigal sought to isolate the personal interaction variables having





the most influence upon successful communication. We can visualize it as follows: If the examples above are the roadblocks, the personal interaction variables having the most influence upon successful communication are the tools to remove those roadblocks. As was mentioned already, these interaction variables are, in order of importance: self-awareness, empathy, tolerance for ambiguity, self-esteem, low dogmatism, high regard for the value of equality, the ability to communicate non-verbally, genuineness, warmth and openness.

As will be explained, the development of a social distance scale is based upon these observations. The items chosen for the scale and the subsequent ordering by a population of graduate international students amplify this earlier research.



### III. METHOD

#### A. SUBJECTS

The subjects used in this research were international officers at the Naval Postgraduate School, Monterey, California and graduate students at Stanford University.

The international officers represented 26 countries. The following are the countries (total officers of each country in parentheses) with the response from each country expressed in a number (also in parentheses):

Argentina (1)(0),	Australia (2)(2),	Brazil (5)(5),
Canada (6)(5),	Chile (3)(1),	China (2)(0),
Denmark (1)(1),	Equador (1)(0),	Germany (15)(7),
Greece (13)(10),	Indonesia (18)(18)	Iran (11)(1),
Israel (2)(0),	Japan (3)(2),	Korea (11)(7),
Norway (6)(6),	Peru (5)(3),	Pakistan (2)(1),
Philippines (2)(2),	Portugal (2)(0),	Spain (2)(1),
Saudi Arabia (3)(1),	Thailand (4)(2),	Turkey (6)(1),
United Kingdom (1)(1),		Venezuela (6)(4).

Besides these figures, there were six responses with unknown foreign nations. These data of internationals were taken from the international officers' roster, June 1976, prior to graduation date on September 1976.

To establish a social distance scale, it was proposed to process the data through the psychophysical method of Thurstone and Chave for measuring attitudes.



Seventy-two statements were sent out in the form of a questionnaire, relating to attitude toward the host country nationals and various aspects of American life. (See Appendix B).

The internationals studying at the Naval Postgraduate School were asked to give their perceptions pertaining to each statement, according to the degree of favorableness and unfavorableness. Seven degrees of favorableness and unfavorableness are given for each statement, as follows: strongly unfavorable - mostly unfavorable - slightly unfavorable - indifferent - slightly favorable - mostly favorable - strongly favorable.

The officers were asked to judge the statements within a week, but in practice it took one month before sixty-five percent (87 responses out of 133 internationals) of the total questionnaires sent out came back. It is not felt, however, that this time span had significant effects upon the returns.

It is noted that the subject population ranges in rank from lieutenant junior grade to captain, had been in service for an average of eight years, represented all curricula in which international students have been enrolled and had been living in California from 3 to 30 months.

The same procedure applies also to the graduate students at Stanford University. These students are of Indonesian nationality, totalling five students. They are Indonesian government officials, represented mostly in the curricula of education/engineering, and also had been living in California from 3 to 30 months.



## B. THURSTONIAN SUCCESSIVE INTERVAL METHOD

### 1. Interval Scaling

Social scientists have developed a wide variety of methods for obtaining quantitative measurement of attitudes. In this study, the successive intervals method seems to be suited for the measurement of the willingness to interact with individuals who come from different backgrounds. The successive intervals method is one of the variants of the judgement method used by Thurstone (Thurstone and Chave, 1929). The purpose of this method is to determine mathematically a scale value on an attitude dimension for each of a set of item-statements by analyzing the way in which a group of judges rate the items with regard to their favorableness. Once scale values have been computed for each item, the item set can be administered as a questionnaire and a composite score may be computed for each subject, using the previously determined scale values as weights. Note, that the "judges" here do not respond to the items with their own attitudes, but with their opinions as to the favorableness of the items in regard to the attitude being measured. [4]

As will be described later, the "judges" at the Naval Postgraduate School were the international officers and graduate students at Stanford University. The items to be judged mostly concern American life close to their environment and more generally also concern international relationships. As might be expected, these students in a certain sense experienced by themselves these interactions with American life, so that





some of these items will be responded to subjectively, reflecting their actual attitudes.

When the number of items to be judged is small, the method of paired comparisons can be used effectively to determine scale values. This involves the pairing of each item with every other for a choice as to the more favorable of the two. As the number of items in the set increases, this method rapidly becomes unwieldy due to the fact that  $K(K-1)/2$  item pairs must be judged, where  $K$  is the number of items.

The method of equal-appearing intervals is the most widely used judgmental method. Each judge is asked to sort the items into a certain number of categories, usually an odd number such as 7 or 9 to provide a center category. The judges are asked to assume that the categories are equally spaced along a scale of favorableness. [4]

An empirical study by Hevner (1930) does indicate that when the same stimuli are scaled both by the method of paired comparisons and the method of equal-appearing intervals, the relationship between the two sets of scale values is approximately linear except at the two extremes of the equal-appearing interval continuum. (See Fig. 1).

Hevner's results indicate that if a statement has an extreme value on the psychological continuum established by the method of paired comparisons, then its scale value on the equal-appearing interval continuum will be less extreme, that is, closer toward the center of the equal-appearing interval continuum.



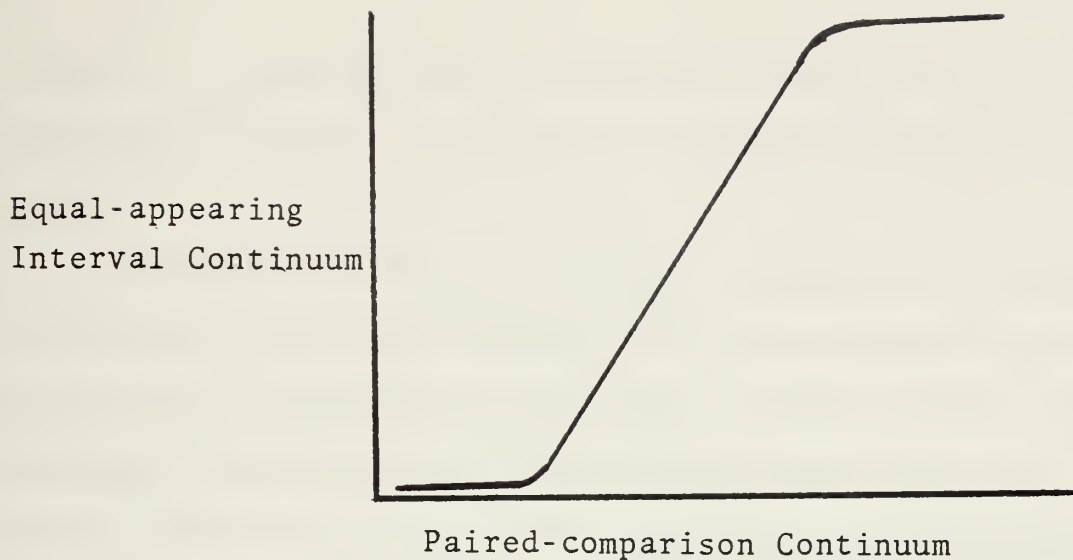


Fig. 1

Attneave (1949, p. 334) has pointed out that: "The source of this distortion is fairly evident on a priori grounds. The ratings of a given item by a number of judges will, when unrestricted, tend to distribute themselves normally about the hypothetically "true" rating; but when the true rating falls at an extreme, variability is possible in only one direction. The distribution obtained in the latter case will therefore be skewed away from the end of the scale, yielding a mean (or median) too close to the center.

It would be desirable to have a scaling method that retains the simplicity of the equal-appearing intervals, that is, one that requires only one judgment from each subject for each statement, but one that, at the same time, yields scale values that are linearly related to those obtained by the method of paired comparisons over the complete range. But to obtain a linear relationship over the complete range would require that we manage, in some way, to stretch or pull out the two extremes of the equal-appearing interval scale of



Figure 1. If we do this, it would mean that we are no longer dealing with equal intervals, but rather with unequal intervals.

Various procedures have been suggested for taking into account possible inequalities in the widths of the intervals on the psychological continuum. Saffir (1937), for example, describes a previously unpublished technique, developed by Thurstone, called the method of successive intervals. Guilford (1938) calls his procedure the method of absolute scaling, while Attneave (1949), using a similar technique, calls it the method of graded dichotomies, and Garner and Hake (1951) use the term equal discriminability scale. The term, method of successive intervals, seems to describe all of these procedures. [2]

Categories are used as in the method of equal-appearing intervals, but the judges are only instructed to consider the categories as being arranged in rank order, with the "widths" of the categories left undefined; The mathematical treatment of the judgmental data begins with a compiled frequency table-- items by categories. The model assumes normality of the distributions of judgments for each item. The steps in the determination of scale values for the items will be outlined in the following computer program: Thurstonian Scale (TSCALE), as described by Donald J. Veldman in his book, "Fortran Programming for the Behavioral Sciences," along with some modifications made for the purpose of this research. [4]



## 2. Program TSCALE

Program TSCALE [4] will accept up to 200 items judged with up to 11 categories. Category numbers for the items are punched across one or more cards per judge. If any item judgments are missing from the data, the corresponding card columns may be left blank or punched with zeroes.

The program begins by reading a series of constants from two "key" cards which are always inserted before the Title Control Card of the first problem deck, whenever the program is used. These constants are employed to build a vector of a z-score equivalents, which is referenced later in conjunction with a vector of proportion values ranging from .025 to .975 by steps of .01, which is also initialized at the beginning of the program.

Subroutine CCDS is then called for the parameter information for the first problem (see Appendix C). The total number of judges is stored in each element of vector K1, and the frequency-distribution matrix NX is zeroed. Data cards are then read and frequencies of category use are accumulated in matrix NX. If a judgment category score of zero is encountered, the element of K1 is reduced by 1. (See Figure 20).

The next section of the program converts the frequency distribution matrix NX into cumulative proportions (over categories for each item) in matrix ZX, and then converts these proportion values to z scores through the use of the vectors of constants set up at the start of the program. If the cumulative proportion for a category is outside the range .025 -





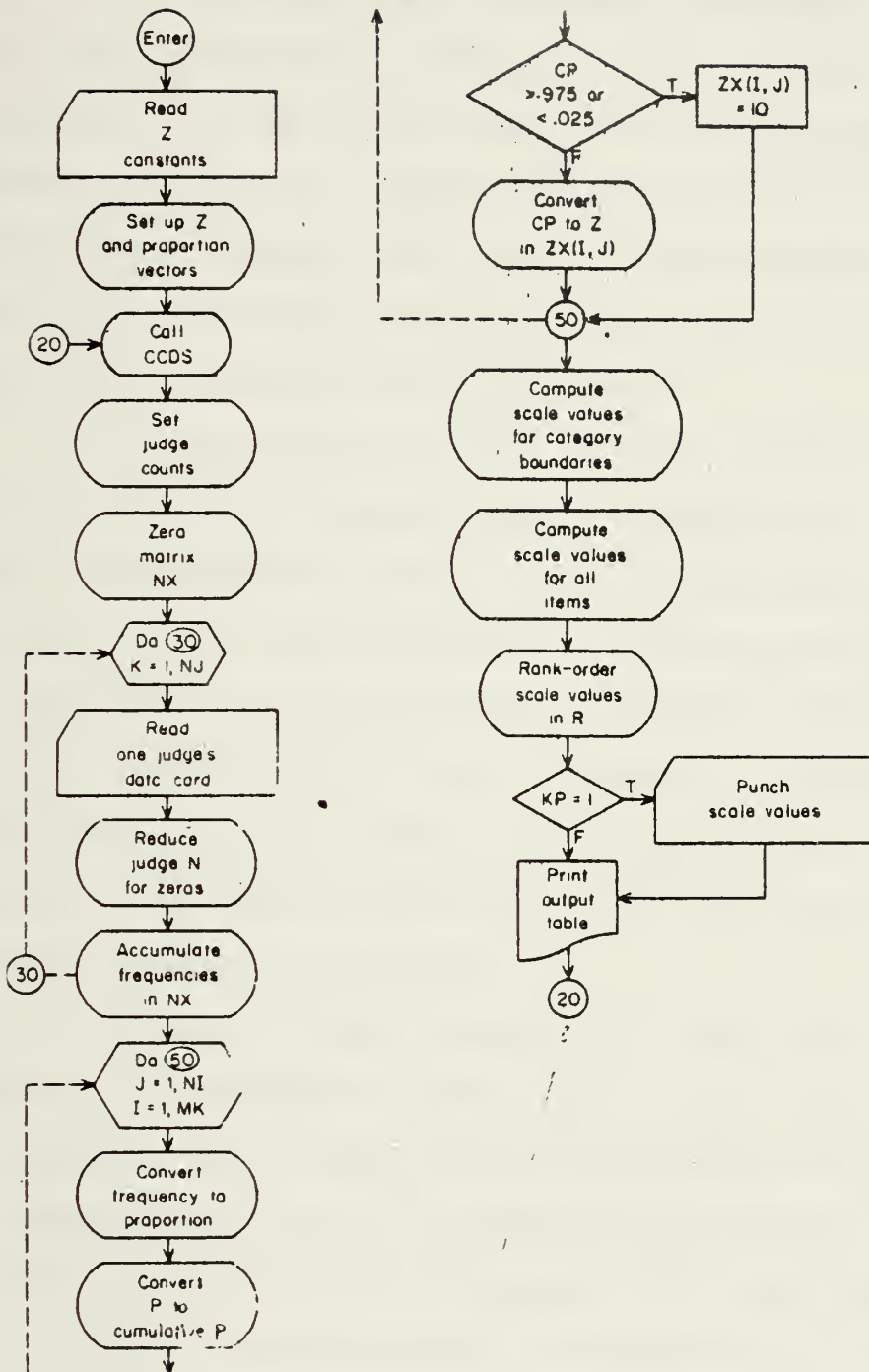


Fig. 2



.975, the corresponding z value is set = 10, as a signal. Later in the process such values will be ignored in order to avoid distortion in the calculation of z values for category boundaries. It should be noted that the beginning of this section involved the computation of raw proportions for each item-category combination. This is carried out using only the valid (non-zero) responses, adjusting for missing scores separately for each item as necessary.

The next section of the program computes scale values for the boundaries between adjacent categories, adjusting these computations to take account of any rejected (coded 10) z values. The scale values are then determined for each item by computing the average of the differences between category-boundary values and the valid z values in a row of matrix ZX. Index numbers of the items are also established in vector K1 and the scale values stored in vector V are duplicated in vector R during this process.

The scale values stored in R, along with their index numbers, are arranged in rank order in the final section of the program, and a single table containing the scale values in item and rank order is printed along with the item-category frequency distributions from matrix NX. (See Appendix C).

Slight modifications in Program TSCALE are brought in, first inserting student's response image expressed in terms of numbers for each student perceiving each statement, ranging from 7 = strongly unfavorable to 1 = strongly favorable, and second, inserting a description of each statement



in the rank ordered final output. (See Appendices B, C, and D).

### 3. Operation of TSCALE

To illustrate the operation of this program, Appendices B, C, and D are included, consisting of: Program TSCALE and International Students at The Naval Postgraduate School Responses. Eighty-six subjects responded to the 72-item questionnaire and were asked to sort them according to seven equal intervals, ranging from: strongly unfavorable = 7, mostly unfavorable = 6, slightly unfavorable = 5, indifferent = 4, slightly favorable = 3, mostly favorable = 2, strongly favorable = 1, and no response = 0. The intervals between the categories should be regarded as subjectively equal.

After the computer run (Appendix C) is accomplished, rank ordered scale values are established for the responses of the international students at the Naval Postgraduate School, relating to their image of American life. Next, the spread of judgments is considered. Obviously, the wider the spread, the more ambiguous the item is. Ambiguous items will cause unreliability and have no place in the scale. These items must be eliminated. Almost any measure of spread (range, variance, standard deviation, semi-interquartile range) will do, but the last is probably the quickest. A modified TSCALE program with subroutine INTRPL (see Appendix K) is used to compute the differences between the 75th percentile and 25th percentile of each statement.





A final list of 25 statements of opinions was selected from the original list of 72 statements. The selection was made with consideration of the criteria of ambiguity (to sort the items with the least semi-interquartile over a uniformly graduated series of scale values), and constitute a more or less uniformly graduated series of scale-values. These evenly graduated series of scale-values are by no means perfect, but they are probably as close as necessary. [14, 15]

The scale is now ready for administration. The statements will be printed in random order, without their scale values. Respondents will only be asked either to agree or to disagree with each statement. Subsequently, the scale value of each agreed upon statement is collated, and the median of these constitutes the respondent's score. If the subject has agreed with an odd number of statements, then the score is simply the scale value of the middle statement when they are arranged in rank order of their scale values. For example, if a subject has agreed with five statements with scale values of 3.22, 4.51, 5.63, 7.26, and 8.93, his score would be the scale value of the middle statement, or 5.63. If an even number of statements are agreed with and the median method of scoring is used, then the midpoint of the scale distance between the two middle statements is taken as his score. For example, if the subject has agreed with 4 statements with scale values of 4.51, 5.67, 7.23, and 8.96, his score would be  $5.67 + (7.23 - 5.67)/2 = 5.67 + 1.56/2 = 5.67 + .78 = 6.45$ .

[2]



Although Thurstone's procedure is primarily concerned with locating items at points on a hypothetical scale, we must be careful when treating these scale values as actual numbers, as units that are additive and interchangeable on a linear continuum. The procedure deals not with equal, but with equal-appearing intervals, with psychological rather than numerical units, which may or may not be equal. Moreover, the division of the continuum into seven units is arbitrary, so that we should not think of a score of six as numerically twice as high as a score of three, and so on. [10]

#### 4. The Distribution of Judgments on the Psychological Continuum

One of the assumptions we made in developing the method of successive interval scaling was that the projection of the cumulative proportion distributions for the various statements would be normal on the psychological continuum. There is evidence, reported by Mosier (1941), Edwards and Thurstone (1952), Edwards (1952) and Jones and Thurstone (1955), to indicate that this, in general, is the case.

Whether the assumption of normality of distribution on the psychological continuum holds true for any particular statement can be determined by plotting the cumulative proportion distribution for the statement on normal probability paper with the psychological continuum along the base line. If the cumulative proportion distribution is normal on the psychological continuum, the graph should be a straight line.

Figure 3 shows the cumulative proportion distribution for statement 62 plotted on normal probability paper. It is



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CUMULATIVE PROPORTION DISTRIBUTIONS

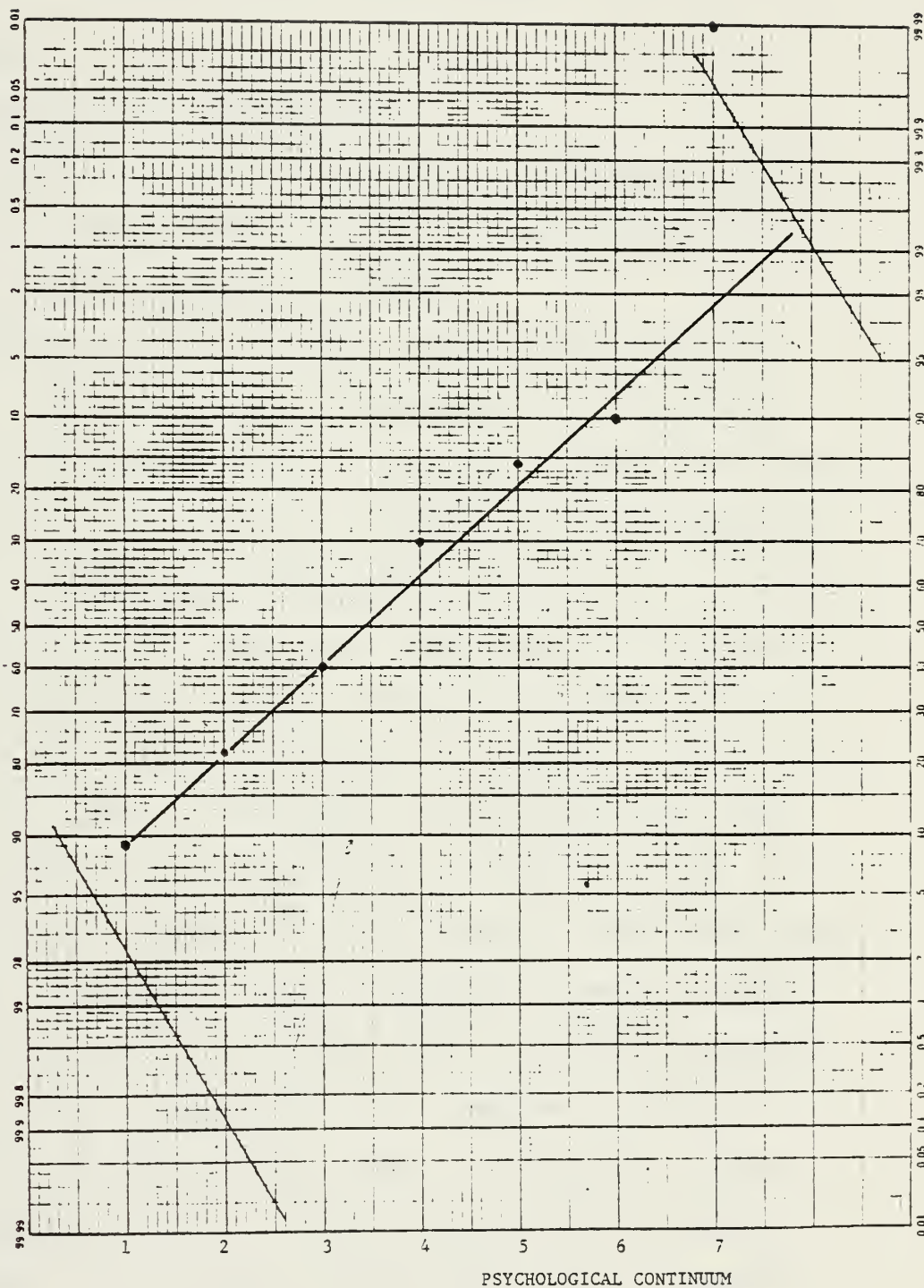


Fig. 3



apparent that this graph is approximately linear. If the other distributions for the other statements were plotted, we would see that they also are approximately linear. [2]

## C. RELIABILITY

### 1. Reliability Test Techniques

In the following tests concerning reliability, all pertain to the social distance scale for international students at the Naval Postgraduate School.

Reliability can be thought of as an attribute of consistency. Since all types of reliability are concerned with the degree of consistency or agreement between two independently derived sets of scores, they can all be expressed in terms of a correlation coefficient. Essentially, a correlation coefficient ( $\rho$ ) expresses the degree of correspondence, or relationship, between two sets of scores. For example, if a top-scoring individual in variable 1 also obtains the top score in variable 2, the second-best individual in variable 1 is second best in variable 2, and so on down to the poorest individual in the group; then these would be a perfect correlation between variables 1 and 2. Such a correlation would have a value of +1.00. A perfect negative correlation (-1.00), means there is a complete reversal of scores from one variable to the other. A zero correlation indicates complete absence of relationship, such as might occur by chance. Correlation coefficients may be computed in various ways, depending on the nature of the data. [3]





In psychological research, the main interest is in generalizing beyond the particular sample of individuals tested to the larger population which they represent. If a correlation is "significant at the .01 level," it means that this relationship would be found by chance alone only one time in a hundred.

In order to test the reliability of the approach to this study, the social distance scale's output of the international students at the Naval Postgraduate School was tested in two ways. The first is through a split-half reliability test, and the second is through the test-retest technique.

## 2. Split-Half Reliability Technique

In order to establish the reliability of the social distance scale, the "judges" were split into two random groups of 43 each. For each of the two groups separately, the distribution of judgments of degree of personal interaction was utilized to obtain social distance scale values following the identical procedure used with the total sample. [11] A Spearman correlation coefficient was then computed between the item scale values obtained in each group by SPSS (Statistical Package for the Social Science) computer program. [9]

The result of the split-half reliability technique can be seen in Appendix N.

It is noted that the Spearman correlation coefficient is .9396 with a significance level of .001 ( $n = 72$ ). As can be seen, the result is quite reliable, and the probability of obtaining that relationship purely by chance is only one out of a thousand.



### 3. Test-Retest Technique

If the same measure were applied to the same object today (Sept., 1976), and after approximately four months (Feb., 1977), the results should be nearly identical unless a real change in the object has taken place. An example of this phenomena, for instance, is that if a ruler can be applied to measure the leg of a table, the results for all practical purposes will be consistent over time. In this study, the greater length and diversity of attitude scales make them more reliable than single questions, but even so, complete consistency is difficult to achieve. People are bound to react somewhat differently to a scale when they are confronted by it a second time. Nevertheless, reliability coefficients of .80 or higher are quite common. [10]

The test consists of Indonesian students at the Naval Postgraduate School scale values on September 1976 (see Appendix F) compared with their scale values on February 1977 (see Appendix G). The September population of the test is 18 Indonesians, compared to the same population in February 1977, minus one who graduated in December 1976 and left the country.

The first test was conducted through the Naval Post-Graduate School mail-box with an allowed response time of one week, the second was conducted on the spot and each student was given 15 minutes to respond, in order to minimize as far as possible the halo effect of the first test.



As before, for each of the two groups separately the distribution of judgments of degree of personal interaction was utilized to obtain social distance scale values through a TSCALE computer program. (See Appendices F and G). The two sets of scale values were then correlated through the SPSS computer program and the results are as follows: Spearman correlation coefficient = .8739, significance level = .001, items = 72. It is felt that reliability over time is established.

Further examination of the data reveals that the repeated measure produced some regression toward the mean. Standard deviations for the scores on the second test were nearly always lower than the first. The exact effect is not known, but the over-all trend is certainly expected.

#### D. VALIDITY

The population which will be described in this sub-chapter is that of the international officers at the Naval Postgraduate School who were asked to judge the 72 item statements to develop a social distance scale.

In order to develop the validity of the scale, it must ultimately be shown that the scale reflects authentic perceptions of the group measured. A measuring instrument must not be seriously affected in its measuring function by the object of measurement. To the extent that its measuring function is so affected, the validity of the instrument is impaired or limited. If a yardstick measured differently because of the fact that it was a rug, a picture, or a piece of paper





that was being measured, then to that extent the trustworthiness of that yardstick as a measuring device would be impaired. Within the range of objects for which the measuring instrument is intended, its function must be independent of the object of measurement.

Similarly, this applies to the method of measuring attitude. It will be noticed that the construction and application of a scale for measuring attitudes are two different tasks. If the scale is to be regarded as valid, the scale values of the statements should not be affected by the opinions of the people who help to construct it. Until experimental evidence may be forthcoming on this point, the assumption is made that the scale values of the statements are independent of the attitude distribution of the subjects who sort the statements. Restating the assumption in another way, if., for instance 85 percent of the militarists declare statement A to be more militaristic than statement B, then, according to the assumption, substantially the same proportion of pacifists would make the same judgment. If this assumption is correct, then the scale is an instrument independent of the attitudes which it is itself intended to measure. [14, 15]

In this study, the experimental test for the above assumption consists merely in constructing two scales for the same issue with the same set of statements. One of these scales was constructed on the returns from the Asiatic/Middle-Eastern (or non-Westerners) students at the Naval Postgraduate School (see Appendix J), and the other scale was constructed with



the same statements on the returns from the European/Canadian/Australian (or Westerners) students at the Naval Postgraduate School (see Appendix I). The two obtained sets of scale values were compared again and the results were: a Spearman correlation coefficient of .8409, significance level = .001, items = 72.

The instrument in itself does not seem to be a contaminant of validity. However, future research should include cross validating responses to the scale with observed behavior of the respondents.



#### IV. RESULTS AND DISCUSSION OF THE STUDY

##### A. INTERNATIONAL STUDENTS AT THE NAVAL POSTGRADUATE SCHOOL

The responses of the 86 international officers at the Naval Postgraduate School form the basis of scaling these attitudes into the final social distance scale of 25 statements. (See Appendix E). Chapter III.B. described the process by which the scale was designed. Appendix D lists the 72 statements which were judged by the respondents.

While the main objective of this study is to develop a social distance scale to measure the willingness to engage in social contact with host country nationals, it is possible to break this data into further categories which have even greater use to administrators and student advisors.

It is of interest to note what the international students at the Naval Postgraduate School see in America, how different it seems to them from their own countries, how well they like these perceived features of the United States, and which things are most important in determining their over-all view of the United States. These findings should have considerable generalizing power, since they represent the opinions of students from 26 different countries and backgrounds. However, these impressions can be clustered in three themes.

As was explained before in the summary of Chapter II, three themes are American values on materialism, on social status and on depth of inter-personal relationships.



Three groups were constructed, pertaining to values on depth of inter-personal relationships (group A), on social status (group B), and on materialism (group C). Then the list of 72 statements were regrouped into groups A, B, and C, with their respective scale values stated in each group. (See Appendix L).

The mean value of group A is the total score of scale values (85.81) divided by the number of statements (56); this gives a mean value of 1.53. With the same procedure, the mean value of group B is 1.33, and the mean value of group C is 1.68.

SUMMARY: Of these three themes, the social status theme emerges as the most positive. Generally, the international students see the United States as egalitarian, informal, and democratic. The theme on the depth of inter-personal relationships in group A is perceived as second best by the international students. The international students generally perceived their host country nationals as friendly, easygoing, and open-minded. However, they do not seem to like the nature of social relations, seeing them as shallow and short-lived. It is felt that the international students have very neatly spotted, in both their perceptions and attitudes, some of the basic contradictions so often noted in American culture. Americans are friendly and easygoing. Their active, optimistic warmth cuts across status barriers to include strangers and mere acquaintances. However, this extended network of social relations is superficial and ephemeral. It is not true





friendship in the European sense of the word (Morris, 1960), although it may at first be mistaken for it. The sweet atmosphere of ready, warm acceptance by Americans may turn sour when students realize that the glad hand may be taken away as fast as it has been extended, perhaps because Americans are a very mobile society, moving from one place to the other. Secondly, Americans, through their hyperactivity and their striving for economic betterment, have succeeded in creating a high standard of living which allows them to adequately care for their less fortunates. However, in this very striving they may have overstressed material means and may have lost sight of spiritual ends, as has been seen in the recent Arab-Israel war (1973) which changed the attitudes of the American people in a more favorable one toward the Arabs, because of the impact of Arab oil boycott on daily American life. Thirdly, in a laissez-faire democracy with freedom of speech, thoughts and associations, there exists a contradiction of racial discrimination. Fourthly, as a super-power, American foreign policy is felt as an important indicator, especially for those foreign students whose profession is that of the armed forces and living in the armed forces environment.

The materialism theme seems to be perceived the lowest as an attitude theme. Students dislike the emphasis placed on financial success and the fact that businessmen are often valued more highly than artists or philosophers. But they like Americans to be ambitious economically. When the social



status theme is compared with the materialism and depth of inter-personal relationships themes, it is seen that the students attach more importance to the social status theme as shaping their over-all view of America.

#### B. INDONESIAN STUDENTS AT STANFORD UNIVERSITY AND THE NAVAL POSTGRADUATE SCHOOL

Three sets of scale values were constructed in this study. First, the set of scale values of 18 Indonesian students at the Naval Postgraduate School was developed in September 1976. (See Appendix F). Second, the set of scale values of the same 18 Indonesians minus one (because he graduated) was developed in February 1977. (See Appendix G). Third, the set of scale values of five Indonesian students at Stanford University was developed in November 1976.

In this study, descriptive analyses were carried out with the first and third sets of scale values, while the first and second sets of scale values had been analyzed in the preceding chapter, III.C., in a test-retest technique for the purpose of determining the reliability of the scale values. Some reference will be made of 22 European/Canadian/Australian (or Westerners) students at the Naval Postgraduate School, using the scale which was constructed in September 1976. (See Appendix I).

A Spearman Correlation Coefficient was computed through SPSS between Indonesian students at Stanford University and those at the Naval Postgraduate School. It was found to be .5965 with a significance level of .001.



Also, a Spearman Correlation Coefficient was computed between Indonesian students and Western students at the Naval Postgraduate School, and this is .8045 with a significance level of .001.

A rather strange phenomena is noted here in the higher correlation between Indonesian and Western students at the Naval Postgraduate School than between Indonesian students at the Naval Postgraduate School and Indonesian students at Stanford University. One reasonable explanation is that of professionalism, i.e., a commonality of military culture and values.

Indonesian students at the Naval Postgraduate School and Western students also at the Naval Postgraduate School, all have the same profession of Armed Force Officers who have built their careers in this profession for at least eight years. Both are in the Naval Postgraduate School with its related social activities which are common in military life.

The data of scale values reflect the above assumption. The main difference between Indonesian students at the Naval Postgraduate School and those at Stanford University, according to their respective scale values, are:

STATEMENT	POSTGRADUATE	STANFORD
To have him (an American) as my employer.	Slightly favorable	Strongly <u>unfavorable</u>
To accept him as my work supervisor.	Mostly favorable	Strongly <u>unfavorable</u>
To accept him as an intimate friend.	Mostly favorable	Strongly <u>unfavorable</u>





To experience that he/she is not really interested in your country.	<u>Strongly</u> unfavorable	<u>Slightly</u> unfavorable
To realize that U.S. foreign policy toward my country reflects little understanding.	<u>Strongly</u> unfavorable	<u>Slightly</u> unfavorable
To experience that your food that you prepared was very highly praised for its deliciousness before he/she tried it, and after that have food be hardly touched.	<u>Strongly</u> unfavorable	Mostly favorable

It seems that Indonesian students at Stanford University are more independent in their conduct and lenient toward individual liberties. They appear to dislike authoritarian conduct in a certain sense, while Indonesian students at the Naval Postgraduate School are more used to social life and organized structure of the Military establishment. It can also be seen that Stanford University Indonesians place heavy emphasis on their study, while Naval Postgraduate School Indonesians (although the emphasis is on study) gave more attention and are more sensitive to international relations.

Professionalism and social relations apparently cause the Naval Postgraduate School Indonesians having no objections toward an American as an intimate friend or as a work supervisor in the context of the Naval Postgraduate School organization.

RESULT OF STUDY: This study indicates an important postulate (posed here as a basis for argument), in that professionalism reduces cross cultural barriers. An obvious example of the postulate is for instance: an Indonesian



professor in mathematics can communicate easier with an American professor in mathematics about everything in life, while the same Indonesian professor could have some difficulties in communications and talking about everything in life with an Indonesian street-sweeper, because of their different educational and skill levels. This postulate is also in a certain sense confirmed by Ingrid Eide's article (see Chapter II) about alternative adjustments: "It seems possible for individuals to adopt professional orientations, without adjusting more generally to foreign culture."

Another important inference concerns foreign aid of the U.S. Emphasis should be given not only to economic and military aid, but more importantly to educational and training aid. Emphasis must be stressed also in this kind of foreign aid, that proper respect to one's national heritage should be given as a proper thing. See also the article of Jeanne Watson and Ronald Lippit in Chapter II. In the long run, these kinds of foreign aid may be an important factor to better understand each other through some experience in cross-cultural interaction, with more positive result to both countries.

#### C. EUROPEAN/CANADIAN/AUSTRALIAN AND ASIATIC/MIDDLE-EASTERN STUDENTS AT THE NAVAL POSTGRADUATE SCHOOL

The international students at the Naval Postgraduate School, as was described before, consist of 26 nationalities, spread evenly over the whole world. The ultimate goal of this research is a social distance scale for measuring the cross-cultural adjustments of these internationals in the



American scene. As was described during the introduction of this study, Americans are perceived as predominantly white people, therefore having white (European) culture. But then, how would Western students perceive Americans in general? (See also in Chapter II, Morris' article of Scandinavian students studying in America).

The discussion in this section tries to answer the above question through correlation analysis of two sets of scale values, one set of Western students (European/Canadian/Australian) (see Appendix I), the second set that of the non-Western students (Asiatic/Middle-eastern) (see Appendix J). As a first attempt, the research was made through different groups in different cultural backgrounds (as was done in Chapter III.D. concerning validity), compare these two groups, and analyze descriptively their differences.

Two different groups in cultural backgrounds were felt to be the group of Western students and that of the non-Western students at the Naval Postgraduate School. The group of Western students consists of 22 students representing Australia (2), Canada (5), Denmark (1), Germany (7), Norway (6), and United Kingdom (1). The group of non-Western students consists of 35 students representing Indonesia (18), Iran (1), Japan (2), Korea (7), Pakistan (1), Philippines (2), Saudi Arabia (1), Thailand (2), and Turkey (1).

The two sets of scale values were developed at the same time (September 1976) concerning judgments of the 72 statements in American life, which were also used in developing the



scale values of all international students at the Naval Postgraduate School. The method used was also the Thurstonian successive interval method. Correlation of these two sets of scale values through SPSS reveals a Spearman correlation coefficient of .8409 with a significance level of .001. The data of scale values reflect that in general, perceptions of Western students are rather highly correlated with non-Western students at the Naval Postgraduate School.

The main differences between Western and non-Western students at the Naval Postgraduate School are, in general:

STATEMENT	WESTERN	NON-WESTERN
To have my daughter marry his son.	Slightly Favorable 1.47	Strongly Unfavorable <u>3.70</u>
To have my daughter date his son.	Slightly Favorable 1.32	Strongly Unfavorable <u>2.30</u>
To marry him/her.	Indifferent 1.72	Mostly Unfavorable <u>2.09</u>
To openly converse and disclose my personal feeling to him.	Indifferent 1.55	Strongly Unfavorable <u>2.03</u>
To know that he/she is always straightforward	Strongly Favorable 0.37	Indifferent <u>1.46</u>
To experience that eating with the left hand is normal in America.	Strongly Favorable 0.00	Indifferent <u>1.45</u>
To experience that freedom of speech, thought and association is unlimited.	Strongly Favorable -0.01	Indifferent <u>1.44</u>
To have him teach my children.	Slightly Favorable 1.38	Strongly Favorable 1.18
To experience that student-professor relations are generally informal at the Naval Postgraduate School.	Strongly Favorable -0.03	Mostly Favorable 1.07





To realize that in their  
everyday relations, people  
treat each other as equals.

Strongly  
Favorable  
0.49

Strongly  
Favorable  
0.25

It seems that the differences in cultural values between Westerners and non-Westerners center mainly around marriage, inner feelings, face-saving, eating habits, individual freedom, children's education, student-professor relations, egalitarian principles.

It is worthwhile, before discussion of the result of this study, to reflect very generally on some background information concerning these two groups of students according to country, economic situation, technological advancement, religion and traditions.

The Western students came from such countries as Australia, Canada, Denmark, Germany, Norway and The United Kingdom. All these countries have a relatively high GNP/INP, all are in an advanced stage of technology, and are frequently referred to as developed countries. The religion of these Western students is predominantly Christian, and family structures are less traditional.

The non-Western students came from such countries as Saudi Arabia and Iran with a very high GNP/INP, followed by Japan whose GNP/INP is equal to Western developed nations. Other countries such as Indonesia, Pakistan, Korea, Philippines, Thailand and Turkey have a low to moderate GNP/INP. But all of these non-Western countries are in their middle stage of technology, and frequently referred to as developing countries. The religions in these countries vary; Indonesia, Pakistan,



Saudi Arabia, Iran and Turkey are predominantly Moslem; Japan, Korea and Thailand are predominantly Buddhist; and the Philippines is predominantly Christian. The family structures of these countries are mainly traditional.

RESULT OF STUDY: Marriage with Americans is considered unfavorable for the non-Western students, while Western students consider it more indifferently to slightly favorable; this can be inferred in that non-Western students have a more traditional family structure. As more traditional people non-Western students feel strongly unfavorable to disclose their personal feelings to Americans, while most Western students are indifferent about it. About straightforwardness, most non-Western students feel indifferent as compared to Western students who feel strongly favorable. This is important, i.e., in face-saving cases, like straightforward reprimanding for the non-Western students from a professor, etc. Eating with the left hand is considered impolite in most Moslem countries, but the non-Western students are indifferent about eating habits in America, maybe because they respect each other's customs. Freedom of speech, thought, and association are principles that are generally accepted by both Western and non-Western students, but non-Western students usually pay more attention to status differentiation within the same social system. Therefore, individual freedom for them must be within the behavioral respect for the older, and is not unlimited. (A good reference of the status differentiation can be found in Uriel G. Foa and Martin M. Chemer's



article, "The Significance of Role Behavior Differentiation for Cross-Cultural Interaction Training, March 1966)." [14] This is also true for informal student-professor relationships. Western students at the Naval Postgraduate School rated this relationship as the most favorable statement. Non-Western students at the Naval Postgraduate School also rated it strongly favorable but have some reservations about this informal relationship due to paying respect to the perceived higher status of the professor. On the other hand, the egalitarian principle is perceived as the most favorable statement by the non-Western students whose countries were relatively new independent countries, while Western students also perceived this as strongly favorable but to a lesser degree than the non-Westerners. The new independent nations also pay much attention to children's education by Americans, to a more favorable degree than their Western classmates. This may be true because most Westerners perceived education in Western Europe as better than in the United States.

#### D. SUMMARY

This study tries to develop some means that detect various perceptions of international students at the Naval Postgraduate School toward American life. It was felt that a social distance scale would be a suitable instrument for measuring these perceptions in order to get an idea of their cross-cultural adjustments to American life. Through the judgments from 86 international students of 72 statements pertaining to





American life, the scale was developed using the Thurstonian successive interval method. The construction of the 72 statements was based through literature study and actual experiences of international students while they stay with their families in the United States.

During the study of the scale values, three important themes in American life emerged. The themes are: Materialism, Social Status, and Depth of Inter-personal Relationships. It seems that the social status theme emerges as most positive. Generally, the international students see the United States as friendly, egalitarian, informal and democratic. Students dislike the emphasis placed on materialism, but they have no objections in that Americans are ambitious economically. The depth of the inter-personal relationships theme reflects both positive and negative attitudes which were perceived by foreign students. They like the friendliness and open-mindedness of Americans, but they do not like social relations which are shallow and short-lived.

Further research on the study tries to correlate scale values of Indonesian students at Stanford University with scale values of Indonesian students at the Naval Postgraduate School, which is lower than the correlation between Indonesian students and Western students at the Naval Postgraduate School. One reasonable explanation is that of professionalism, i.e., commonality of military culture and values. An important postulate emerges from this observation, in that professionalism reduces cross-cultural barriers.



Such an emphasis should be given not only with economic and military aid, but more importantly in educational and training aid so as to emphasize the appropriate cultural norms when dealing with recipients or students. In the long run, foreign aid in education and training may be an important factor to better understand each other through some experiences in cross-cultural interaction with positive results to both countries. Some observers also feel that when a student returns home his good memories about the host country's culture will prevail over bad memories.

A correlation was computed between Western students and non-Western students at the Naval Postgraduate School to see if generality exists in perceiving American culture. It was felt that American culture is predominantly a Western culture. It was found that the Spearman correlation coefficient is .8409. Therefore, generality seems to exist between the perceptions of Western and non-Western students. The main differences between the two groups seem to be regarding marriage, inner feelings, eating habits, individual freedom, children's education, student-professor relationships, and the egalitarian principle.

To test the reliability of the scale, a split-half reliability technique and a test-retest technique were used. In both cases, high Spearman correlation coefficients were obtained (.9396 and .8739).

Face-validity of the scale was tested through a correlation of two sets of scale values obtained, one from non-Western



students and the other set from Western students at the Naval Postgraduate School. The method itself does not seem to be a contaminant of validity. However, future research should include cross-validity responses to the scale with observed behavior of the respondents.

Finally, a list of 25 statements of opinions was selected from the original list of 72 statements. The selection was made with consideration of the criteria of ambiguity (to sort the items with the least semi-interquartile range), and constitute a more or less uniformly graduated series of scale values.

The final list of 25 statements was administered in random order, without their scale values. Respondents were only asked to agree or disagree with each statement. Subsequently, the scale value of each agreed-upon statement was collated and the median of these constitutes the respondent's score.

The following is the final list:

STATEMENT	STAT. NO.	GROUP	SCALE VALUE
1. To experience that you are not invited to come in his/her house because you did not make an appointment beforehand.	38	A	2.19
2. To know that upon arriving at the airport, no one is to meet you.	33	A	2.11
3. To experience that your food that you prepared was hardly touched by your sponsor because of different tastes.	42	A	2.04
4. To experience that many international students find that dating in the U.S. creates an area of considerable mal-adjustments.	68	A	1.95



STATEMENT	STAT. NO.	GROUP	SCALE VALUE
5. To realize that life is so narrowly academic in comparison with social life and leisure time activities.	61	A	1.88
6. To realize that the way in which U.S. foreign policy is conducted is usually penetrating, careful.	58	A	1.73
7. To notice that in economic matters, people tend to be ambitious.	55	C	1.62
8. To rent a room with him.	6	A	1.52
9. To openly converse and disclose my personal feelings to him.	7	B	1.47
10. To experience that eating with the left hand is normal in America.	67	B	1.41
11. To double with him on a date.	13	A	1.28
12. To have him as my employer.	8	A	1.21
13. To use the same dentist.	1	A	1.14
14. To accept him as an intimate friend.	26	A	1.07
15. To live next door to him.	19	A	0.91
16. To be seen in public with him.	15	A	0.77
17. To accept him as my family's friend.	22	A	0.64
18. To have my children go to school with his children.	14	A	0.59
19. To invite him to a dinner party at my home.	10	A	0.51
20. To realize that in their everyday relations people treat each other as equals.	53	B	0.36





STATEMENT	STAT. NO.	GROUP	SCALE VALUE
21. To experience that you must wait for two hours for the bus to go to the commissary which is eight miles out of town.	46	A	2.71
22. To feel that most Americans do not think well of my country because they feel that they are superior and they let me know it.	64	A	2.65
23. To feel that in losing academic status my colleagues think of me as less intelligent than did my classmates or teachers at home.	65	A	2.53
24. To experience that he/she is not really interested in your country.	45	A	2.42
25. To experience that your food that you prepared was very highly praised for its deliciousness before he/she even tried it and after that have the food be hardly touched.	43	A	2.63

The final list can be regrouped also into the three themes pertaining to American life on depth of inter-personal relationships (group A), social status (group B), and materialism (group C). Appendix O shows the regrouping of the final list, stated in statement-number and the respective scale-value.

Once again, it can be inferred that of the three themes the social status theme emerges as most positive (mean value 1.08). The materialism theme (mean value 1.62) does not seem to hang together very well as an attitude theme (only one out of 25 statements). The depth of inter-personal relationships theme (mean value 1.64), seems to reflect mostly the individual feelings toward American culture. All in all, comparing the

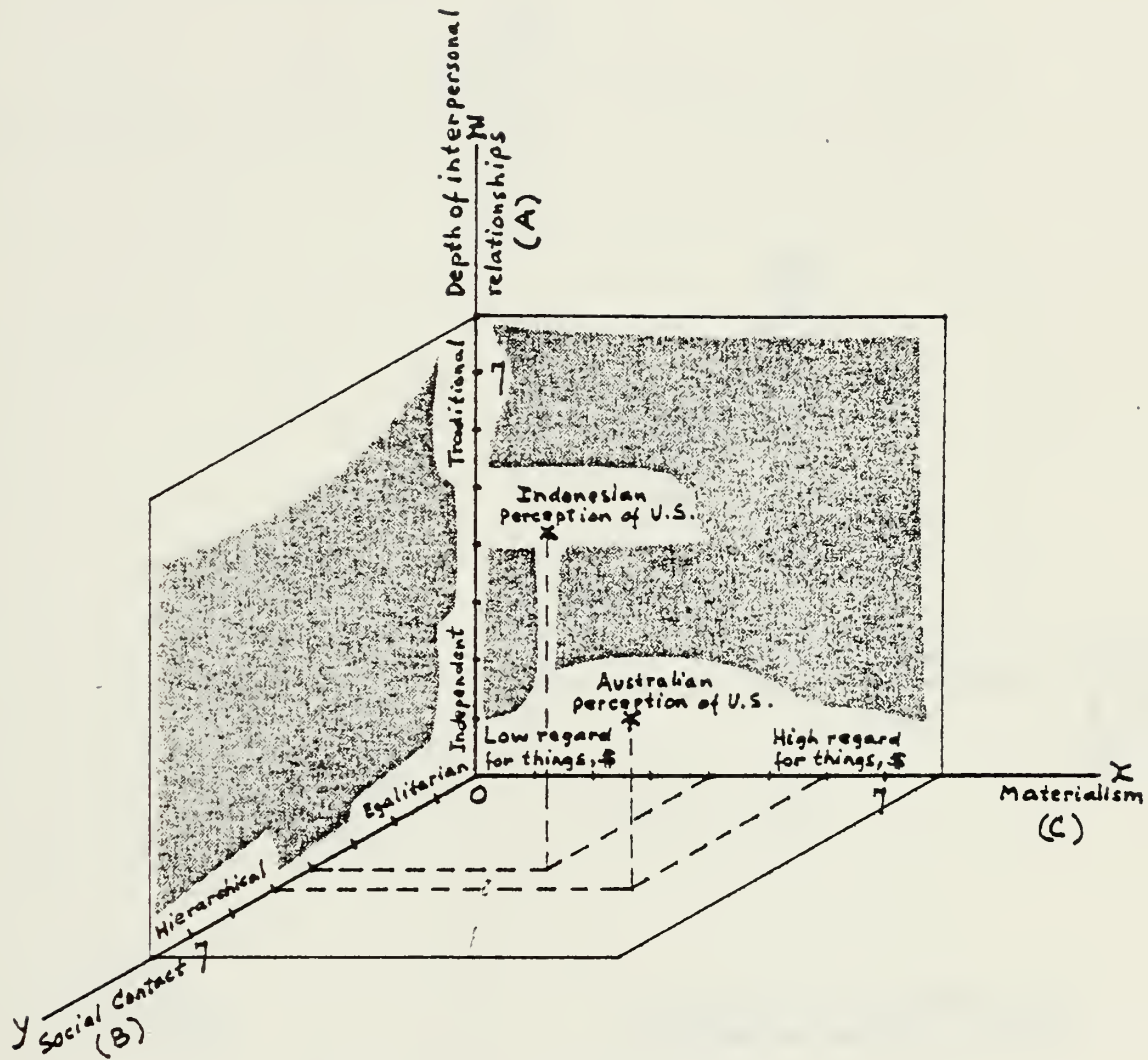


three themes together, the international students see the U.S. as egalitarian, informal, and democratic.

Besides the respondent's score, a three-dimensional coordinate system is constructed that reflects the international student's perception toward American culture on Depth of Inter-personal Relationships, Social Status, and Materialism. The X-axis of the coordinate system pertains to Materialism, the Y-axis to Social Status, and the Z-axis to the Depth of Inter-personal Relationships, each measured from the point of origin (scale-value 0) to the maximum on each axis (scale-value 7). (See Figure 4). The respondent's score constitutes the mean of the scale-values of each agreed upon statement, on each of the three themes. The three mean-values are plotted as points on the respective axis (which each represents a psychological continuum pertaining to each theme). Finally, the student's total score can be plotted as a point in space. See for example, an Indonesian total score and an Australian total score in Figure 4, pertaining to their perceptions to American culture. /

As an illustrative example of the coordinate system in three dimensions, Western (European/Canadian/Australian) and Indonesian students at the Naval Postgraduate School were compared. (See Figure 5 and Appendix M). Axis A referred to depth of inter-personal relationships, axis B to social status, and axis C to materialism. The range of the psychological continuum on each axis is from 0 (the origin = strongly favorable) until 7 or -7 (= strongly unfavorable). With the





THREE-DIMENSIONAL SCALE.

Fig.4





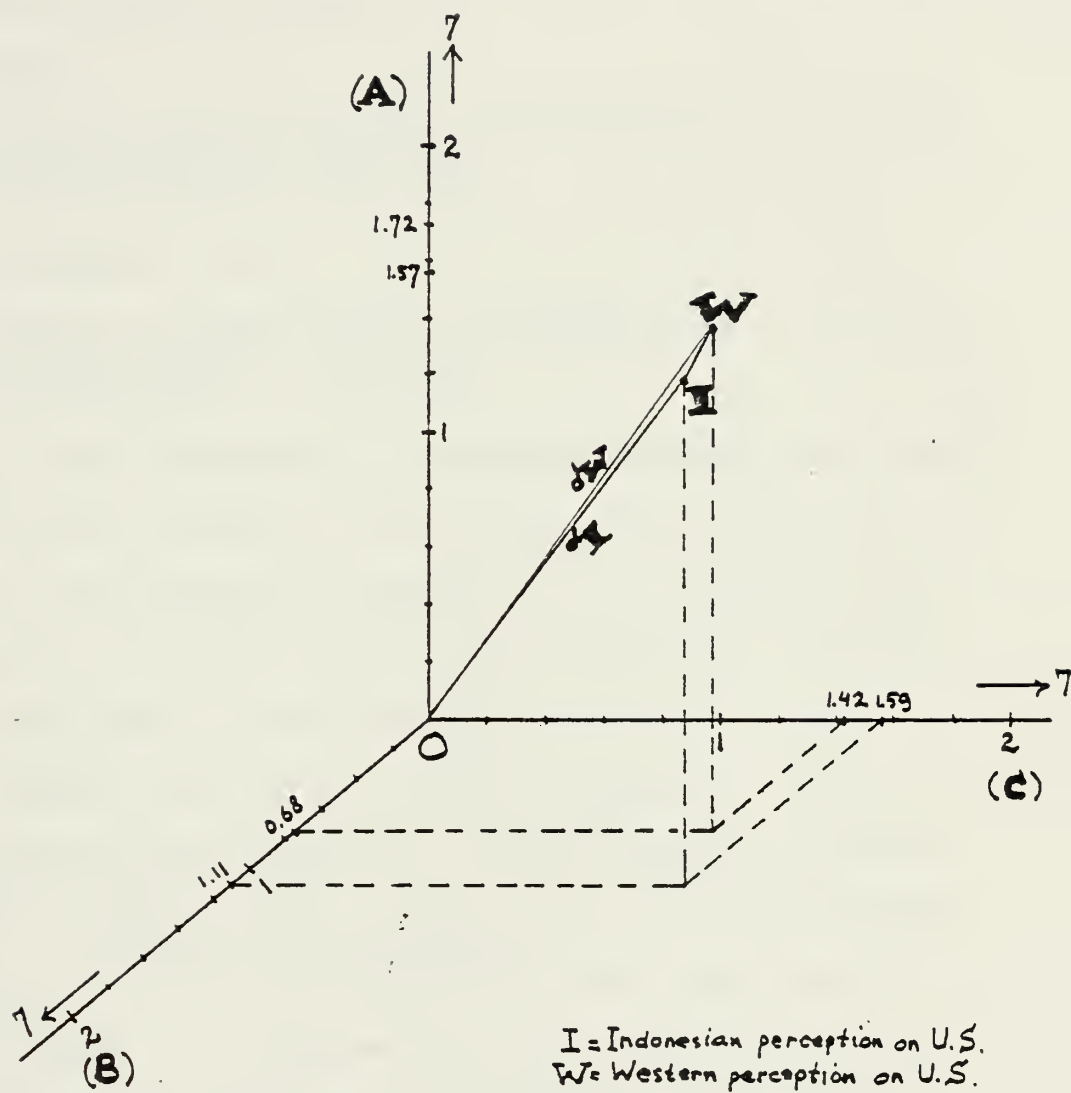


Fig. 5



same procedure as above, mean scale values for each group of students pertaining to their perceptions to American life, and divided in A, B, C, were computed.

The results were as follows:

Western students:

Mean on depth of inter-personal relationships: 1.72 (A)  
Mean on social status: 0.68 (B)  
Mean on materialism: 1.42 (C)

Indonesian students:

Mean on depth of inter-personal relationships: 1.57 (A)  
Mean on social status: 1.11 (B)  
Mean on materialism: 1.59 (C).

As can be seen, in general the Western students are closer to American culture (which is perceived as mainly Western culture) than the Indonesian students. It is worthwhile to mention, however, that the depth of inter-personal relationships with Americans is more favorably perceived by the Indonesian students than by the Western students. The cultural distance from the origin is, for the Western students,  $d_W = \sqrt{1.72^2 + 0.68^2 + 1.42^2} = 2.33$ , and, for the Indonesian students,  $d_I = \sqrt{1.57^2 + 1.11^2 + 1.59^2} = 2.49$ , both using Pythagoras formula. It confirms with the conclusion above, that Western students are closer to American culture than is the case with Indonesian students. If proximities were used, then if the Western students' view toward American culture is exactly the same as the Indonesian students' view, both points W and I will coincide. It is worthwhile to compute the proximity of both groups' point of view; applying again Pythagoras' formula, now with differences of both groups, the distance



will be:

$$\begin{aligned}d_W - d_I &= \sqrt{(1.72 - 1.57)^2 + (0.68 - 1.11)^2 + (1.42 - 1.59)^2} \\&= \sqrt{0.15^2 + 0.43^2 + 0.17^2} = .48\end{aligned}$$

which, when compared with the maximum distance,

$$2 \sqrt{7^2 + 7^2 + 7^2} = 24.24,$$

the proximity between the two groups is very near. It means that there are but a few differences in outlook between Western and Indonesian students at the Naval Postgraduate School toward the American Scene. (See also the discussions in Chapter IV.B.).



## V. CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

### A. CONCLUSIONS

During the study a social distance scale was developed consisting of 25 final statements. It is now possible to better predict the foreign student's adjustment into the American scene. The study suggests two measurements which may help predict foreign students' adjustment, one through reaction to statements on the total list, the second through reaction to statements upon three vectors of the final list, i.e., the depth of inter-personal relationships theme, social status theme, and the materialism theme. In the first method, an over-all view of the student's adjustment can be obtained on an uni-dimensional psychological continuum developed by Thurstone. The second method opens the possibilities to obtain a deeper insight into the student's adjustment on a three-dimensional psychological continuum which can be visualized as a point in space of the three-dimensional coordinate system. (See Figure 4).

During the descriptive analysis of the study, several postulates emerged:

1. The international students attach more importance to the social status theme than the themes on depth of inter-personal relationships and materialism. Generally, they see the United States as egalitarian, informal, and democratic.





2. The international students perceived their host country nationals as friendly, easygoing, and open-minded; however, they do not like the nature of social relations which are shallow and short-lived.

3. The international students dislike the emphasis placed on financial success and the fact that businessmen are valued more highly than artists and philosophers, but they like Americans to be ambitious economically.

4. Professionalism reduces cross-cultural barriers. It seems possible for individuals to adopt professional orientations, without having to adjust more generally to foreign culture.

5. As a consequence of these thoughts, when it comes to foreign aid emphasis should be given not only to economic and military aid, but more importantly to how education and training is approached. Emphasis must be stressed in this kind of foreign aid and that appropriate account for one's national heritage be given.

6. While abroad, the international student may experience a revocation of his national status. This becomes the most frequent basis of identification with host country nationals, of association or lack of association. As an important personal variable, it will be particularly important in determining the foreign student's adjustment.

7. The international students at the Naval Postgraduate School have a general uniformity in perceiving values on American life. Nevertheless, regardless of which country was



their host, the several nationalities of international students retained their characteristic responses, reflecting their different adjustment patterns.

## B. RECOMMENDATIONS FOR FUTURE RESEARCH

This social distance scale is now ready for applications in the future. In addition to obtaining cross-validation (mentioned before in Chapter III.D.) of the scale through responses of observed behavior of the respondents, future research could also include: confirmation or rejection of the proposed postulates (see Chapter V.A.); applications of the scale in diagnosing the adjustments of international students who seem to have difficulties during their study at the Naval Postgraduate School; developing a social distance scale which is more extended to all higher learning education in the U.S.; deeper research in multi-dimensional scaling. (See Torgerson's, Theory and Methods of Scaling, 1976, [18] and Roger N. Shepard's, The Analysis of Proximities: Multi-dimensional Scaling with an Unknown Distance Function, 1962.

[13]

Last, but not least, misunderstanding in cross-cultural relations may also be related in less successful communication. R.A. McGonigal [8] sought to isolate the personal interaction variables having the most influence upon successful communication. As was mentioned already, these interaction variables are, in order of importance: self-awareness, empathy, tolerance for ambiguity, self-esteem, low dogmatism,



high regard for the value of equality, the ability to communicate non-verbally, genuineness, warmth and openness. Research could be done in detecting (through a social distance scale), treatment through R.A. McGonigal's personal interaction variables, and cross-validating again through the social distance scale after observed behavior of the respondents after a certain amount of time.





APPENDIX A

THE MEANING OF CERTAIN VARIABLES  
IN CROSS-CULTURAL STUDY

If not noted in parentheses, the definitions herein refer to R.A. McGonigal's expressions.

1. Attitude is the sum-total of a man's inclinations and feelings, prejudice or bias, preconceived notions, ideas, fears, threats, and convictions about any specific topic.  
(Thurstone)

2. Culture is the skills, arts, etc. of a given people in a given period; civilization. (Webster)

3. Culture Shock is the anxiety produced from loss of familiar cues when one tries to penetrate a new culture. It ranges from malaise to such complete immobilization that the change agent must be recalled from his work.

4. Cross-cultural Relation is an encounter, of fixed duration, between persons extracted from different cultural backgrounds. (van Nieuwenhuijze) [17]

5. Dogmatism is the degree of rigidity with which one clings to opinions, beliefs and attitudes.

6. Empathy is the ability of one party to recognize and respond accurately to another party's feelings seriously and in depth.

7. Genuineness refers to the congruity of one's inner feelings with those which are outwardly communicated.



Masks, roles, double messages and facades are usual indications of low genuineness.

8. Tolerance for Ambiguity is defined as the tendency to perceive ambiguous situations as non-threatening. Situations viewed as novel, complex or insoluble are seen as tolerable or even desirable by some and intolerable by others.

9. Non-Verbal Communication Skills are those arrays of facial and gestural activities which aid and sometimes replace verbal communication.

10. Opinion is a verbal expression of attitude. (Thurstone)

11. Openness refers to the amount of feeling and judgment which one reveals to others. It involves openly expressing and assuming responsibility for feelings and judgments.

12. Regard for the Value of Equality is perhaps best judged by a person's overt acts toward his neighbors.

13. Self-Awareness refers to the degree of congruence between what a man perceives others to feel toward him and what others actually feel toward him. [Traux][64]

14. Self-Esteem also is a congruence factor. In this case, it involves the degree of congruence between one's perceived self worth and his ideal self. It is a case of inner congruity. (Cade)[70]

15. Warmth refers to positive regard exhibited toward others. The key dimension is the amount of unconditional acceptance of others.



APPENDIX B  
QUESTIONNAIRE OF ITEMS

Dear Friend,

May I ask for your assistance? Like you, I am heavily involved with a thesis. My project is to identify perceptions of international students coming to NPS and to design a way of making it easier for some of our fellow students to adjust to this new life.

Please circle your response to the enclosed items and return this paper to SMC 2341 within a week. It would greatly help if you put the name of your home country on page two. However, there is no need to include your name anywhere on the form.

If you have any questions or comments, I would be glad to talk with you about the survey.

Thank you for your help. Perhaps I can assist you with your thesis, too.

Sincerely,

Ngandani  
Colonel, Indonesian Army  
SMC 2341  
Phone 373-4280



HOME COUNTRY 

---

The following list includes common events or experiences we may have in the United States. Please think of U.S. citizens as you read the statements and indicate the degree of favorableness you feel about these kinds of relationships with Americans.

	Strongly Unfavorable	Mostly Unfavorable	Slightly Unfavorable	Indifferent	Slightly Favorable	Mostly Favorable	Strongly Favorable
1. To use the same dentist.	SU	MU	SLU	I	SLF	MF	SF
2. To have my daughter marry his son.	SU	MU	SLU	I	SLF	MF	SF
3. To bowl on the same team with him.	SU	MU	SLU	I	SLF	MF	SF
4. To have my children be close friends with his children.	SU	MU	SLU	I	SLF	MF	SF
5. To eat lunch at the same table with him.	SU	MU	SLU	I	SLF	MF	SF
6. To rent a room with him.	SU	MU	SLU	I	SLF	MF	SF
7. To openly converse and disclose my personal feelings to him.	SU	MU	SLU	I	SLF	MF	SF
8. To have him as my employer.	SU	MU	SLU	I	SLF	MF	SF
9. To perform a service for him as part of my job.	SU	MU	SLU	I	SLF	MF	SF





		Strongly Unfavorable	Mostly Unfavorable	Slightly Unfavorable	Indifferent	Slightly Favorable	Mostly Favorable	Strongly Favorable
10.	To invite him to a dinner party at my home.	SU	MU	SLU	I	SLF	MF	SF
11.	To ask him to join a private club to which I belong.	SU	MU	SLU	I	SLF	MF	SF
12.	To accept him as a member of my community.	SU	MU	SLU	I	SLF	MF	SF
13.	To double with him on a date.	SU	MU	SLU	I	SLF	MF	SF
14.	To have my children go to school with his children.	SU	MU	SLU	I	SLF	MF	SF
15.	To be seen in public with him.	SU	MU	SLU	I	SLF	MF	SF
16.	To invite him to go with me on an extensive trip to another country.	SU	MU	SLU	I	SLF	MF	SF
17.	To have him teach my children.	SU	MU	SLU	I	SLF	MF	SF
18.	To invite him over to watch television in my home.	SU	MU	SLU	I	SLF	MF	SF
19.	To live next door to him.	SU	MU	SLU	I	SLF	MF	SF
20.	To do business with him.	SU	MU	SLU	I	SLF	MF	SF
21.	To have my children play with his children.	SU	MU	SLU	I	SLF	MF	SF
22.	To accept him as my family's friend.	SU	MU	SLU	I	SLF	MF	SF
23.	To marry him/her.	SU	MU	SLU	I	SLF	MF	SF



		Strongly Unfavorable	Mostly Unfavorable	Slightly Unfavorable	Indifferent	Slightly Favorable	Mostly Favorable	Strongly Favorable
24.	To have my daughter date his son.	SU	MU	SLU	I	SLF	MF	SF
25.	To share an apartment with him.	SU	MU	SLU	I	SLF	MF	SF
26.	To accept him as an intimate friend.	SU	MU	SLU	I	SLF	MF	SF
27.	To accept him as my work supervisor.	SU	MU	SLU	I	SLF	MF	SF
28.	To attend a sports activity with him.	SU	MU	SLU	I	SLF	MF	SF
29.	To ask him to join me for lunch.	SU	MU	SLU	I	SLF	MF	SF
30.	To openly discuss politics with him.	SU	MU	SLU	I	SLF	MF	SF
31.	To work in the same office with him.	SU	MU	SLU	I	SLF	MF	SF
32.	To accept him as a roommate.	SU	MU	SLU	I	SLF	MF	SF

The following events may never have happened to you. However, use your imagination. If the event had happened, please give your reaction.

33.	To know that upon arriving for the first time at the airport, no one is to meet you.	SU	MU	SLU	I	SLF	MF	SF
34.	To know that you have to look for an apartment by yourself.	SU	MU	SLU	I	SLF	MF	SF



	Strongly Unfavorable	Mostly Unfavorable	Slightly Unfavorable	Indifferent	Slightly Favorable	Mostly Favorable	Strongly Favorable
35. To experience that your sponsor did not contact you for more than one month.	SU	MU	SLU	I	SLF	MF	SF
36. To be invited by your sponsor to eat dinner of food with which you are not familiar.	SU	MU	SLU	I	SLF	MF	SF
37. To be invited by him to eat dinner of food that is not your native food and that you do not like.	SU	MU	SLU	I	SLF	MF	SF
38. To experience that you are not invited to come in his/her house because you did not make an appointment beforehand.	SU	MU	SLU	I	SLF	MF	SF
39. To experience that you join a party at which strong liquors are the only beverage.	SU	MU	SLU	I	SLF	MF	SF
40. To join a party at which the customs are very different than yours.	SU	MU	SLU	I	SLF	MF	SF
41. To experience the friendliness and open-mindedness of your sponsor and sponsor's wife for the first 2-3 months but then, bit by bit, become a formal relationship due to cultural differences.	SU	MU	SLU	I	SLF	MF	SF
42. To experience that your food that you prepared was hardly touched by your sponsor because of different tastes.	SU	MU	SLU	I	SLF	MF	SF



	Strongly Unfavorable	Mostly Unfavorable	Slightly Unfavorable	Indifferent	Slightly Favorable	Mostly Favorable	Strongly Favorable
43. To experience that your food that you prepared was very highly praised for its deliciousness before he/she even tried it and after that have the food be hardly touched.	SU	MU	SLU	I	SLF	MF	SF
44. To experience that you can not express your opinion very well in class although you know the answer.	SU	MU	SLU	I	SLF	MF	SF
45. To experience that he/she is not really interested in your country.	SU	MU	SLU	I	SLF	MF	SF
46. To experience that you must wait for 2 hours for the bus to go to the commissary which is 8 miles out of town.	SU	MU	SLU	I	SLF	MF	SF
47. To know that he/she is always straight forward.	SU	MU	SLU	I	SLF	MF	SF
48. To experience that freedom of speech, thought, and association is unlimited.	SU	MU	SLU	I	SLF	MF	SF
49. To realize that in bringing up children, American parents usually allow them much freedom.	SU	MU	SLU	I	SLF	MF	SF
50. To realize that financial success as an objective in life is generally important here.	SU	MU	SLU	I	SLF	MF	SF
51. To experience that student-professor relations are generally informal at NPS.	SU	MU	SLU	I	SLF	MF	SF





	Strongly Unfavorable	Mostly Unfavorable	Slightly Unfavorable	Indifferent	Slightly Favorable	Mostly Favorable	Strongly Favorable
52. To notice that when meeting strangers, most people hesitate to show friendliness.	SU	MU	SLU	I	SLF	MF	SF
53. To realize that in their everyday relations, people treat each other as equals.	SU	MU	SLU	I	SLF	MF	SF
54. To experience that it is extremely difficult to rent an apartment which allows children, more easier to rent apartments with pets allowed.	SU	MU	SLU	I	SLF	MF	SF
55. To notice that in economic matters, people tend to be ambitious.	SU	MU	SLU	I	SLF	MF	SF
56. To realize that the United States foreign policy toward my country reflects little understanding.	SU	MU	SLU	I	SLF	MF	SF
57. To realize that U.S. aid to other countries is given more because of United States own national interest.	SU	MU	SLU	I	SLF	MF	SF
58. To realize that the way in which U.S. foreign policy is conducted is usually penetrating, careful.	SU	MU	SLU	I	SLF	MF	SF
59. To come to the opinion that the businessman and manufacturer are considered more important than the artist and philosopher.	SU	MU	SLU	I	SLF	MF	SF
60. To experience that most free time activities take place outside the home and family.	SU	MU	SLU	I	SLF	MF	SF



	Strongly Unfavorable	Mostly Unfavorable	Slightly Unfavorable	Indifferent	Slightly Favorable	Mostly Favorable	Strongly Favorable
61. To realize that life is so narrowly academic in comparison with social life and leisure time activities.	SU	MU	SLU	I	SLF	MF	SF
62. To see that as an approach to world cooperation and peace, the United Nations is generally viewed as a realistic approach.	SU	MU	SLU	I	SLF	MF	SF
63. To know that my race or foreign appearance causes limited contacts with Americans or special areas of American life.	SU	MU	SLU	I	SLF	MF	SF
64. To feel that most Americans do not think well of my country, because they feel that they are superior, and they let me know it.	SU	MU	SLU	I	SLF	MF	SF
65. To feel that in losing academic status, my colleagues think of me as less intelligent than did my classmates or teachers at home.	SU	MU	SLU	I	SLF	MF	SF
66. To feel that the academic routine is so different from those at home, that I cannot accept the American way of doing things.	SU	MU	SLU	I	SLF	MF	SF
67. To experience that eating with the left hand is normal in America.	SU	MU	SLU	I	SLF	MF	SF



	Strongly Unfavorable	Mostly Unfavorable	Slightly Unfavorable	Indifferent	Slightly Favorable	Mostly Favorable	Strongly Favorable
68. To experience that many international students find that "dating" in the United States creates an area of considerable maladjustments.	SU	MU	SLU	I	SLF	MF	SF
69. To know that students from certain countries bringing wives that accompany their husbands permits normal sexual life.	SU	MU	SLU	I	SLF	MF	SF
70. To know that bringing wives sometimes causes isolation from the American scene, especially when wives are inadequate in their English and educational background.	SU	MU	SLU	I	SLF	MF	SF
71. To hear that no one is taking care of your family back home, while you study here for two or three years.	SU	MU	SLU	I	SLF	MF	SF
72. To feel that deterioration of international relationships of your country with America results in the depersonalization of friendships with your American classmates.	SU	MU	SLU	I	SLF	MF	SF



## APPENDIX C

## PROGRAM TSCALE OUTPUT

[illegible]





```

0052 ZX(I,J) = Z(K)
0053 50 CONTINUE
0054 LK = KK - 1
C COMPUTE WEIGHTS FOR CATEGORY BOUNDARIES.
0055 B(1) = 0.0
0056 DO 65 I = 1,LK
0057 B(I+1) = 0.6
0058 TN = 0.0
0059 DO 60 J = 1,NI
0060 D = 0.0
0061 IF (ZX(I+1,J) - ZX(I,J)) TN = TN + 1.0
0062 D = ZX(I+1,J) - ZX(I,J)
0063 60 B(I+1) = B(I+1) + D
0064 65 B(I+1) = B(I+1) / TN + B(I)
0065 C COMPUTE SCALE VALUES.
0066 DO 75 J = 1,NI
0067 S = 0.0
0068 X = 0.0
0069 DO 70 I = 1,MK
0070 IF (ZX(I,J) - EQ. 10.0) GO TO 70
0071 X = X + 1.0
0072 S = S + B(I) - ZX(I,J)
0073 70 CONTINUE
0074 KI(J) = J
0075 V(J) = S / X
0076 75 R(J) = V(J)
C RANK-ORDER SCALE VALUES.
0077 DO 85 I = 1,NI
0078 K = I
0079 DO 80 J = 1,NI
0080 IF (R(K) - LT. R(J)) K = J
0081 80 CONTINUE
0082 IF (K - EQ. 2) GO TO 85
0083 KX = KI(K)
0084 KI(K) = KI(I)
0085 KI(I) = KX
0086 X = R(K)
0087 R(I) = X
0088 85 CONTINUE
C OUTPUT TABLE OF SCALE VALUES AND FREQUENCIES.
0090 770 WRITE(6,770)
0091 770 FORMAT(1,' STATEMENTS TO BE JUDGED BY STUDENTS ACCORDING TO INTER-
1 VAL SCALES, RANGING FROM : -1, STRONGLY FAVORABLE (1),
1, MOSTLY FAVORABLE (2), SLIGHTLY FAVORABLE (3),
1, INDIFFERENT (4), SLIGHTLY UNFAVORABLE (5),
1, MOSTLY UNFAVORABLE (6), STRONGLY UNFAVORABLE (7). ' //)
0092 I=0
0093 DO 994 IH = 1,999
0094 IF (I - GT. NI) GOTO 993
0095 I = I + 1
0096 READ(5,995) END=993, LL, (TYPE1(I,L), L=1,19)
0097 WRITE(6,995) LL, (TYPE1(I,L), L=1,19)
0098 995 FORMAT(14,19A)
0099 IF (LSAVE - EQ. LL) GOTO 880
0100 IF (I - EQ. 51) WRITE(6,770)
0101 DO 881 II = 1,12
0102 TYPE1(II) = TYPE1(I,II)
0103 881 CONTINUE
0104 TYPE1(I,1) = TNINE
0105 LSAVE = LL
0106 GOTO 994
0107 880 CONTINUE
0108 III = I - 1
0109 DO 882 II = 1,7
0110 IKK = II + 12
0111 TYPE1(III,II) = TYPE1(III,IKK)
0112 882 CONTINUE
0113 DO 883 II = 8,26
0114 IKK = II - 7
0115 TYPE1(III,II) = TYPE1(I,IKK)
0116 883 CONTINUE

```



```

0117 I = I-1
0118 CONTINUE
0119 PRINT 90
0120 90 FORMAT (1, 22US C A L E V A L U E S 10X, STATEMENTS', 39X, 15H
0121 1 21HE R E O U E N C I E S // 13H RANK-ORDERED, 50X,
1 ITEM-ORDERED, 1115)
0122 I = 1
0123 DO 95 I = 1, NI
0124 KL = KI(I)
0125 PRINT 100, KI(I), R(I), (TYPE(KL,L), L=1, 12), L, V(I), (NX(J,I), J=1,
1 NK)
0126 100 FORMAT (15 F8.2, 2X, 12A4, 17 F8.2, 1115)
0127 IF (TYPE1(KL,1), EQ, TNINE) GOTO 771
0128 PRINT 772, (TYPE1(KL, LL), LL=1, 26)
0129 772 FORMAT (1, 14X, 26A4)
0130 771 CONTINUE
0131 IF (II-25) 701, 702, 701
0132 702 PRINT 90, (II, II=1, NK)
0133 II=1
0134 II=II+1
0135 95 CONTINUE
0136 END

```



SUBROUTINE PCDS (X, N, M, KH, ND)

PUNCHES CARDS FROM AN ARRAY IN 7-ELEMENT BLOCKS. A MATRIX IS  
PUNCHED BY ROWS, BEGINNING EACH ROW ON A NEW CARD.  
X = NAME OF ARRAY TO BE OUTPUT.  
N = NUMBER OF ROWS IF X IS MATRIX, OR ELEMENTS IF A VECTOR.  
M = NUMBER OF COLUMNS IF X IS MATRIX. SET = 1 FOR A VECTOR.  
KH = OUTPUT LABEL, HOLLERITH BLOCK (MAX = 5) IN CALL STATEMENT.  
ND = NUMBER OF ROWS DIMENSIONED FOR X IN CALLING PROGRAM.

```

DIMENSION X(ND, M)
IF (M .GT. 1) GO TO 15
L = 1
DO 10 I = 1, N
  J = MIN0(I, 6, M)
  WRITE (6, 5) KH, M, L, (X(K, I), K=1, J)
  5 FORMAT (A5, I3, I2, 7F10.4)
  10 L = L + 1
RETURN
15 DO 20 I = 1, N
  LL = 1
  DO 20 J = 1, M
    K = MIN0(J, 6, M)
    WRITE (6, 5) KH, I, LL, (X(I, L), L=J, K)
    20 LL = LL + 1
  RETURN
END

```



```

SUBROUTINE CCDS (KP, KI, KJ, KK, KL, KM)

READS AND PRINTS TITLE, PARAMETER, AND FORMAT CONTROL CARDS.
KF = VECTOR HOLDING VARIABLE FORMAT ON RETURN.
KI, KJ, KK, KL, KM = PARAMETER VALUES.
KH = TEMPORARY STORAGE WITHIN THIS ROUTINE.
BLANK TITLE CARD STOP.

DIMENSION KF(20), KH(20)

READ(15,5) KH
5 FORMAT(20A4)
IF(KH(1).EQ. KH(2)) STOP
10 READ(15,10) KI, KJ, KK, KL, KM, KF
10 FORMAT(5I1 / 20A4)
15 PRINT(15,KH, KI, KJ, KK, KL, KM, KF)
15 FORMAT(1U1, 20A4 / 11H PARAMETERS / 13H COL 11-15 =
2 15 / 13H COL 21-25 = , 15 // 15H DATA FORMAT = , 20A4)
13H COL 6-10 = 15 / 13H COL 11-15 = 15 / 13H COL 16-20 = , 15 / 13H COL 21-25 = , 15 // 15H DATA FORMAT = , 20A4)
END

```





# APPENDIX D

## ITEMS TO BE JUDGED AND INTERNATIONAL STUDENTS' AT THE NAVAL POSTGRADUATE SCHOOL RESPONSES INPUT IMAGE

STATEMENTS TO BE JUDGED BY STUDENTS ACCORDING TO INTERVAL SCALES RANGING FROM :  
STRONGLY FAVORABLE (1) MOSTLY FAVORABLE (2) SLIGHTLY FAVORABLE (3)  
INDIFFERENT (4) SLIGHTLY UNFAVORABLE (5) MOSTLY UNFAVORABLE (6)  
STRONGLY UNFAVORABLE (7).

- 1TO USE THE SAME DENTIST.
- 2TO HAVE MY DAUGHTER MARRY HIS SON.
- 3TO BOWL ON THE SAME TEAM WITH HIM.
- 4TO HAVE MY CHILDREN TO BE CLOSE FRIENDS WITH HIS CHILDREN.
- 5TO EAT LUNCH AT THE SAME TABLE WITH HIM.
- 6TO RENT A ROOM WITH HIM.
- 7TO OPENLY CONVERSE AND DISCLOSE MY PERSONAL PEE-LING TO HIM.
- 8TO HAVE HIM AS MY EMPLOYER.
- 9TO PERFORM A SERVICE FOR HIM AS PART OF MY JOB.
- 10TO INVITE HIM TO A DINNER PARTY AT MY HOME.
- 11TO ASK HIM TO JOIN A PRIVATE CLUB TO WHICH I BELONG.
- 12TO ACCEPT HIM AS A MEMBER OF MY COMMUNITY.
- 13TO DOUBLE WITH HIM ON A DATE.
- 14TO HAVE MY CHILDREN GO TO SCHOOL WITH HIS CHILDREN.
- 15TO BE SEEN IN PUBLIC WITH HIM.
- 16TO INVITE HIM TO GO WITH ME ON AN EXTENSIVE TRIP TO ANOTHER COUNTRY.
- 17TO HAVE HIM TEACH MY CHILDREN.
- 18TO INVITE HIM OVER TO WATCH TELEVISION IN MY HOME.
- 19TO LIVE NEXT DOOR TO HIM.
- 20TO DO BUSINESS WITH HIM.
- 21TO HAVE MY CHILDREN PLAY WITH HIS CHILDREN.
- 22TO ACCEPT HIM AS MY FAMILY'S FRIEND.
- 23TO MARRY HIM/HER.
- 24TO HAVE MY DAUGHTER DATE HIS SON.
- 25TO SHARE AN APARTMENT WITH HIM.
- 26TO ACCEPT HIM AS AN INTIMATE FRIEND.
- 27TO ACCEPT HIM AS MY WORK SUPERVISOR.
- 28TO ATTEND A SPORTS ACTIVITY WITH HIM.
- 29TO ASK HIM TO JOIN ME FOR LUNCH.
- 30TO OPENLY DISCUSS POLITICS WITH HIM.
- 31TO WORK IN THE SAME OFFICE WITH HIM.
- 32TO ACCEPT HIM AS A ROOMMATE.
- 33TO KNOW THAT UPON ARRIVING FOR THE FIRST TIME AT THE AIRPORT, NO ONE IS TO MEET YOU.
- 34TO KNOW THAT YOU HAVE TO LOOK FOR AN APARTMENT BY YOURSELF.
- 35TO EXPERIENCE THAT YOUR SPONSOR DID NOT CONTACT YOU FOR MORE THAN ONE MONTH.
- 36TO BE INVITED BY YOUR SPONSOR TO EAT DINNER OF FOOD WITH WHICH YOU ARE NOT FAMILIAR.
- 37TO BE INVITED BY HIM TO EAT DINNER OF FOOD THAT IS NOT YOUR NATIVE FOOD AND THAT YOU DO NOT LIKE.
- 38TO EXPERIENCE THAT YOU ARE NOT INVITED TO COME IN HIS/HER HOUSE BECAUSE YOU DID NOT MAKE AN APPOINTMENT BEFOREHAND.
- 39TO EXPERIENCE THAT YOU JOIN A PARTY AT WHICH STRONG LIQUORS ARE THE ONLY BEVERAGE.
- 40TO JOIN A PARTY AT WHICH THE CUSTOMS ARE VERY DIFFERENT THAN YOURS.
- 41EXPERIENCE: FRIENDLINESS\*OPEN MINDEDNESS OF YOUR SPONSOR\*HIFE FOR THE 1ST 2-13 MONTHS BUT THEN BIT BY BIT BECOME FORMAL DUE TO CULTURAL DIFFERENCES.
- 42TO EXPERIENCE THAT YOUR FOOD THAT YOU PREPARED WAS HARDLY TOUCHED BY YOUR SPONSOR BECAUSE OF DIFFERENT TASTES.
- 43EXPERIENCE: YOUR FOOD THAT YOU PREPARED WAS VERY HIGHLY PRAISED FOR ITS DELI-CIOUSNESS BEFORE HE/SHE TRIED IT, AFTER THAT HAVE FOOD BE HARDLY TOUCHED.
- 44TO EXPERIENCE THAT YOU CANNOT EXPRESS YOUR OPINION VERY WELL IN CLASS. ALTHOUGH YOU KNOW THE ANSWER.
- 45TO EXPERIENCE THAT HE/SHE IS NOT REALLY INTERESTED IN YOUR COUNTRY.
- 46TO EXPERIENCE THAT YOU MUST WAIT FOR 2 HOURS FOR THE BUS TO GO TO THE COMMISSARY WHICH IS 8 MILES OUT OF TOWN.
- 47TO KNOW THAT HE/SHE IS ALWAYS STRAIGHT FORWARD.
- 48TO EXPERIENCE THAT FREEDOM OF SPEECH, THOUGHT, AND ASSOCIATION IS UNLIMITED.
- 49TO REALIZE THAT IN BRINGING UP THEIR CHILDREN, AMERICAN PARENTS USUALLY ALLOW THEM MUCH FREEDOM.
- 50TO REALIZE THAT FINANCIAL SUCCESS AS AN OBJECTIVE IN LIFE IS GENERALLY IMPORTANT HERE.
- 51TO EXPERIENCE THAT STUDENT-PROFESSOR RELATIONS ARE GENERALLY INFORMAL AT NP



STATEMENTS TO BE JUDGED BY STUDENTS ACCORDING TO INTERVAL SCALES HANGING FROM :  
STRONGLY FAVORABLE (1) MOSTLY FAVORABLE (2) SLIGHTLY FAVORABLE (3)  
INDIFFERENT (4) SLIGHTLY UNFAVORABLE (5) HOSTLY UNFAVORABLE (6)  
STRONGLY UNFAVORABLE (7).

51S. NOTICE THAT WHEN MEETING STRANGERS, MOST PEOPLE HESITATE TO SHOW FRIENDLINESS.  
52ND. REALIZE THAT IN THEIR EVERY DAY RELATIONS, PEOPLE TREAT EACH OTHER AS EQUALS.  
53RD. EXPERIENCE: EXTREMELY DIFFICULT TO RENT AN APARTMENT WHICH ALLOWS CHILDREN, MORE EASIER TO RENT APARTMENTS WITH PETS ALLOWED.  
54TH. NOTICE THAT IN ECONOMIC MATTERS, PEOPLE TEND TO BE AMBITIOUS.  
55. REALIZE THAT THE UNITED STATES FOREIGN POLICY TOWARD MY COUNTRY REFLECTS LITTLE UNDERSTANDING.  
56. REALIZE THAT U.S. AID TO OTHER COUNTRIES IS GIVEN MORE BECAUSE OF UNITED STATES OWN NATIONAL INTEREST.  
57. REALIZE THAT THE WAY IN WHICH U.S. FOREIGN POLICY IS CONDUCTED IS USUALLY PENETRATING CAREFUL.  
58. COME TO THE OPINION THAT THE BUSINESSMAN AND MANUFACTURER ARE CONSIDERED MORE IMPORTANT THAN THE ARTIST AND PHILOSOPHER.  
59. EXPERIENCE THAT MOST FREE TIME ACTIVITIES TAKE PLACE OUTSIDE THE HOME AND FAMILY.  
60. REALIZE THAT LIFE IS SO NARROWLY ACADEMIC IN COMPARISON WITH SOCIAL LIFE AND LEISURE TIME ACTIVITIES.  
61. SEE THAT AS AN APPROACH TO WORLD COOPERATION AND PEACE, THE UNITED NATION IS GENERALLY VIEWED AS A REALISTIC APPROACH.  
62. KNOW THAT MY RACE OR FOREIGN APPEARANCE CAUSES LIMITED CONTACTS WITH AMERICANS OR SPECIAL AREAS OF AMERICAN LIFE.  
63. FEEL THAT MOST AMERICANS DO NOT THINK WELL OF MY COUNTRY, BECAUSE THEY FEEL THAT THEY ARE SUPERIOR AND THEY LET ME KNOW IT.  
64. FEEL THAT IN LOSING ACADEMIC STATUS MY COLLEAGUES THINK OF ME AS LESS INTELLIGENT THAN DID MY CLASSMATES OR TEACHERS AT HOME.  
65. FEEL THAT THE ACADEMIC ROUTINE IS SO DIFFERENT FROM THOSE AT HOME, THAT I CANNOT ACCEPT THE AMERICAN WAY OF DOING THINGS.  
66. EXPERIENCE THAT EATING WITH THE LEFT HAND IS NORMAL IN AMERICA.  
67. EXPERIENCE THAT MANY INTERNATIONAL STUDENTS FIND THAT DATING IN THE UNITED STATES CREATES AN AREA OF CONSIDERABLE MALADJUSTMENTS.  
68. KNOW THAT STUDENTS FROM CERTAIN COUNTRIES BRINGING WIVES THAT ACCOMPANY THEIR HUSBANDS PERMITS NORMAL SEXUAL LIFE.  
69. KNOW THAT BRINGING WIVES, SOMETIMES CAUSES ISOLATION FROM THE AMERICAN SCENE, ESPECIALLY WHEN WIVES ARE INADEQUATE IN ENGLISH+EDUCATIONAL BACKGROUND.  
70. HEAR THAT NO ONE IS TAKING CARE OF YOUR FAMILY BACK HOME, WHILE YOU STUDY HERE FOR 2 OR 3 YEARS.  
71. FEEL: DETERIORATION OF INTERNATIONAL RELATIONSHIPS OF YOUR COUNTRY WITH AMERICA.  
72. RESULTS IN DEPERSONALIZATION OF FRIENDSHIPS WITH YOUR AMERICAN CLASSMATES.









ITEM	10	20	30	40	50	60	70
S75JHAI	4744444444444444	24443444336744	4444446544444444	5555755444444444	7622617464444464	55644444564	
S75JHAK	4522465444444444	54522320464444	4432466453554	36566472226247664	465526544444	4442676	
S76JUK	1511124112114124	111151312111	1121767562255555	4426755444444444	52525625444444	44421574	
S770-K	4444443522664444	12042444253244	35841325525555	163255155544	253545774444	44454577	
S78JUKN	1444444224444444	44424804444444	44443584132554	4044451444004444	444444444444	444500000	
S79JUKN	4444444444444444	46444444444444	44442444544444	5444511474514444	464444444444	444444444	
S80JUKN	1111111111111111	11111111211111	11111551513757	5712316175777	17177777171777	171777	
S81JUKN	0754456535504444	44445444575544	4444554444444444	4444444444444444	444444444444	4444544	
S82JUKN	4444476444444444	44444444474444	4444444444444444	4444444444444444	444444444444	44441775	
S83JUKN	4444476444444444	44444444474444	4444444444444444	4444444444444444	444444444444	444444444	
S84JUKN	4543444444444444	14434444444444	44444444474444	44444444474444	444444444444	444444444	
S85JUKN	3443445335504444	24466422374444	4444244245114744	44444744444444	11374444444444	44443477	
S86JUKN	4741222442444444	14121412772722	14244511744744	774114117770085	5066064441777	4441777	





# APPENDIX E

## SCALE VALUES OF INTERNATIONAL STUDENTS AT THE NAVAL POSTGRADUATE SCHOOL

RANK-ORDERED	SCALE VALUES	STATEMENTS	FREQUENCIES									
			ITEM-ORDERED	1	2	3	4	5	6	7		
71	3.22	TO HEAR THAT NO ONE IS TAKING CARE OF YOUR FAMILY BACK HOME, WHILE YOU STUDY HERE FOR 2 OR 3 YEARS.	1	1.14	14	9	4	55	1	0	1	
46	2.71	TO EXPERIENCE THAT YOU MUST WAIT FOR 2 HOURS FOR THE BUS TO GO TO THE COMMISSARY WHICH IS 8 MILES OUT OF TOWN.	2	2.17	2	1	5	41	12	7	16	
64	2.65	TO FEEL THAT MOST AMERICANS DO NOT THINK WELL OF MY COUNTRY, BECAUSE THEY FEEL THAT THEY ARE SUPERIOR, AND THEY LET ME KNOW IT.	3	0.83	12	15	8	47	2	1	0	
72	2.60	TO FEEL: DETERIORATION OF INTERN'L RELATIONSHIPS OF YOUR COUNTRY W AMERICA, RESULTS IN DEPERSONALIZATION OF FRIENDSHIPS W YOUR AMERICAN CLASSMATES.	4	0.53	24	19	13	27	1	1	0	
65	2.53	TO FEEL THAT IN LOSING ACADEMIC STATUS MY COLLEAGUES THINK OF ME AS LESS INTELLIGENT THAN DID MY CLASSMATES OR TEACHERS AT HOME.	5	0.75	20	17	7	40	1	0	1	
56	2.51	TO REALIZE THAT THE UNITED STATES FOREIGN POLICY TOWARD MY COUNTRY REFLECTS LITTLE UNDERSTANDING.	6	1.52	8	8	7	36	11	11	5	
54	2.45	EXPERIENCE: EXTREMELY DIFFICULT TO RENT AN APARTMENT WHICH ALLOWS CHILDREN, MORE EASIER TO RENT APARTMENTS WITH PETS ALLOWED.	7	1.47	6	8	17	27	14	7	5	
45	2.42	TO EXPERIENCE THAT HE/SHE IS NOT REALLY INTERESTED IN YOUR COUNTRY.	8	1.21	8	7	12	44	9	2	2	
63	2.40	TO KNOW THAT MY RACE OR FOREIGN APPEARANCE CAUSES LIMITED CONTACTS WITH AMERICANS OR SPECIAL AREAS OF AMERICAN LIFE.	9	1.18	8	12	47	7	1	0		
44	2.40	TO EXPERIENCE THAT YOU CANNOT EXPRESS YOUR OPINION VERY WELL IN CLASS ALTHOUGH YOU KNOW THE ANSWER.	10	0.51	25	16	17	24	2	0	0	
43	2.36	EXPERIENCE: YOUR FOOD THAT YOU PREPARED WAS VERY HIGHLY PRAISED FOR ITS DELICIOUSNESS BEFORE HE/SHE TRIED IT. AFTER THAT HAVE FOOD BE HARDLY TOUCHED.	11	0.92	11	21	12	33	6	1	1	
38	2.19	TO EXPERIENCE THAT YOU ARE NOT INVITED TO COME IN HIS/HER HOUSE BECAUSE YOU DID NOT HAVE AN APPOINTMENT BEFOREHAND.	12	0.75	17	15	16	29	7	0	0	
2	2.17	TO HAVE MY DAUGHTER MARRY HIS SON.	13	1.28	7	11	9	40	8	2	2	
70	2.17	TO KNOW THAT BRINGING WIVES SOMETIMES CAUSES ISOLATION FROM THE AMERICAN SCENE, ESPECIALLY WHEN WIVES ARE INADEQUATE IN ENGLISH+EDUCATIONAL BACKGN.	14	0.59	26	13	13	30	0	1	1	
33	2.11	TO KNOW THAT UPON ARRIVING FOR THE FIRST TIME AT THE AIRPORT, NO ONE IS TO MEET YOU.	15	0.77	18	8	9	47	2	1	0	
42	2.04	TO EXPERIENCE THAT YOUR FOOD THAT YOU PREPARED WAS HARDLY TOUCHED BY YOUR SPONSOR BECAUSE OF DIFFERENT TASTES.	16	1.41	5	9	17	32	14	3	4	
35	2.01	TO EXPERIENCE THAT YOUR SPONSOR DID NOT CONTACT YOU FOR MORE THAN ONE MONTH.	17	1.05	15	17	14	24	8	4	3	
41	1.98	EXPERIENCE: FRIENDLINESS+OPEN MINDEDNESS OF YOUR SPONSOR+WIFE FOR THE 1ST 2-3 MONTHS, BUT THEN BIT BY BIT BECAME FORMAL DUE TO CULTURAL DIFFERENCES.	18	1.18	10	16	8	38	5	3	4	
68	1.95	TO EXPERIENCE THAT MANY INTERNATIONAL STUDENTS FIND THAT DATING IN THE UNITED STATES CREATES AN AREA OF CONSIDERABLE MALADJUSTMENTS.	19	0.91	12	16	8	41	4	3	0	
24	1.90	TO HAVE MY LAUGHTER DATE HIS SON.	20	0.99	8	20	11	37	6	2	0	
52	1.90	TO NOTICE THAT WHEN MEETING STRANGERS, MOST PEOPLE HESITATE TO SHOW FRIENDLINESS.	21	0.53	19	19	15	28	3	0	0	
23	1.90	TO MARRY HIM/HER.	22	0.64	15	18	17	31	3	0	0	
61	1.88	TO REALIZE THAT LIFE IS SO NARROWLY ACADEMIC IN COMPARISON WITH SOCIAL LIFE AND LEISURE TIME ACTIVITIES.	23	1.90	4	2	6	34	13	7	11	
57	1.86	TO REALIZE THAT U.S. AID TO OTHER COUNTRIES IS GIVEN MORE BECAUSE OF UNITED STATES OWN NATIONAL INTEREST.	24	1.90	2	3	9	42	9	6	12	
66	1.85	TO FEEL THAT THE ACADEMIC ROUTINE IS SO DIFFERENT FROM THOSE AT HOME, THAT I CANNOT ACCEPT THE AMERICAN WAY OF DOING THINGS.	25	1.64	4	9	5	39	12	12	2	



## S C A L E V A L U E S

## STATEMENTS

## RANK-ORDERED

RANK-ORDERED	ITEM-ORDERED	STATEMENTS	F R E Q U E N C I E S									
			1	2	3	4	5	6	7	8	9	10
59	1.77	TO COME TO THE OPINION THAT THE BUSINESSMAN AND MANUFACTURER ARE CONSIDERED MORE IMPORTANT THAN THE ARTIST AND PHILOSOPHER.	26	1.07	9	16	15	32	5	3	2	
60	1.76	TO EXPERIENCE THAT MOST FREE TIME ACTIVITIES TAKE PLACE OUTSIDE THE HOME AND FAMILY.	27	1.06	6	18	15	36	7	1	1	
50	1.73	TO REALIZE THAT THE WAY IN WHICH U.S. FOREIGN POLICY IS CONDUCTED IS USUALLY PENETRATING, CAREFUL.	28	0.74	11	20	16	33	3	1	0	
37	1.67	TO BE INVITED BY HIM TO EAT DINNER OF FOOD THAT IS NOT YOUR NATIVE FOOD AND THAT YOU DO NOT LIKE.	29	0.85	11	21	17	33	1	0	1	
39	1.66	TO EXPERIENCE THAT YOU JOIN A PARTY AT WHICH STRONG LIQUORS ARE THE ONLY BEVERAGE.	30	1.12	14	15	11	28	8	3	4	
25	1.64	TO SHARE AN APARTMENT WITH HIM.	31	0.89	11	14	12	42	4	0	1	
55	1.62	TO NOTICE THAT IN ECONOMIC MATTERS, PEOPLE TEND TO BE AMBITIOUS.	32	1.58	3	10	11	36	12	11	1	
32	1.58	TO ACCEPT HIM AS A ROOMMATE.	33	2.11	3	3	2	24	24	16	12	
34	1.57	TO KNOW THAT YOU HAVE TO LOOK FOR AN APARTMENT BY YOURSELF.	34	1.57	8	3	7	24	34	5	4	
6	1.52	TO RENT A ROOM WITH HIM.	35	2.01	3	4	3	28	23	14	10	
50	1.48	TO REALIZE THAT FINANCIAL SUCCESS AS AN OBJECTIVE IN LIFE IS GENERALLY IMPORTANT HERE.	36	1.07	10	28	8	27	3	5	4	
62	1.48	TO SEE THAT AS AN APPROACH TO WORLD COOPERATION AND PEACE, THE UNITED NATIONS IS GENERALLY VIEWED AS A REALISTIC APPROACH.	37	1.67	5	4	14	28	18	6	8	
7	1.47	TO OPENLY CONVERSE AND DISCLOSE MY PERSONAL FEELING TO HIM.	38	2.19	0	4	7	27	16	14	14	
16	1.41	TO INVITE HIM TO GO WITH ME ON AN EXTENSIVE TRIP TO ANOTHER COUNTRY.	39	1.66	6	4	7	38	16	6	7	
67	1.41	TO EXPERIENCE THAT EATING WITH THE LEFT HAND IS NORMAL IN AMERICA.	40	1.28	7	16	10	27	17	5	2	
49	1.35	TO REALIZE THAT IN BRINGING UP THEIR CHILDREN, AMERICAN PARENTS USUALLY ALLOW THEM MUCH FREEDOM.	41	1.98	2	2	6	32	24	12	5	
13	1.28	TO DOUBLE WITH HIM ON A DATE.	42	2.04	0	3	4	31	31	9	6	
40	1.28	TO JOIN A PARTY AT WHICH THE CUSTOMS ARE VERY DIFFERENT THAN YOURS.	43	2.36	0	4	3	25	17	14	20	
8	1.21	TO HAVE HIM AS MY EMPLOYER.	44	2.40	3	3	2	8	21	23	25	
9	1.18	TO PERFORM A SERVICE FOR HIM AS PART OF MY JOB.	45	2.42	1	1	1	25	32	10	15	
18	1.18	TO INVITE HIM OVER TO WATCH TELEVISION IN MY HOME.	46	2.71	1	0	2	19	18	19	23	
1	1.14	TO USE THE SAME DENTIST.	47	1.04	17	18	13	25	4	3	5	
30	1.12	TO OPENLY DISCUSS POLITICS WITH HIM.	48	0.73	32	20	5	14	9	2	3	
36	1.07	TO BE INVITED BY YOUR SPONSOR TO EAT DINNER OF FOOD WITH WHICH YOU ARE NOT FAMILIAR.	49	1.35	3	19	12	30	8	7	2	



S C A L E V A L U E S		S T A T E M E N T S		F R E Q U E N C I E S									
RANK-ORDERED			ITEM-ORDERED	1	2	3	4	5	6	7	8	9	10
26	1.07	TO ACCEPT HIM AS AN INTIMATE FRIEND.	50	1.48	7	14	10	20	14	7	8		
27	1.06	TO ACCEPT HIM AS MY WORK SUPERVISOR.	51	0.53	25	26	12	14	3	3	1		
17	1.05	TO HAVE HIM TEACH MY CHILDREN.	52	1.90	0	7	3	33	24	9	6		
47	1.04	TO KNOW THAT HE/SHE IS ALWAYS STRAIGHT FORWARD.	53	0.36	33	23	13	9	2	4	0		
20	0.99	TO DO BUSINESS WITH HIM.	54	2.45	4	3	2	11	9	14	40		
11	0.92	TO ASK HIM TO JOIN A PRIVATE CLUB TO WHICH I BELONG.	55	1.62	3	10	11	29	17	5	8		
19	0.91	TO LIVE NEXT DOOR TO HIM.	56	2.51	2	2	4	8	23	25	18		
31	0.89	TO WORK IN THE SAME OFFICE WITH HIM.	57	1.86	4	8	4	28	18	5	13		
29	0.85	TO ASK HIM TO JOIN ME FOR LUNCH.	58	1.73	3	8	13	10	7	5	12		
3	0.83	TO FOUL ON THE SAME TEAM WITH HIM.	59	1.77	4	8	10	26	17	10	10		
69	0.80	TO KNOW THAT STUDENTS FROM CERTAIN COUNTRIES BRINGING WIVES THAT ACCOMPANYING THEIR HUSBANDS PERMITS NORMAL SEXUAL LIFE.	60	1.76	4	4	9	32	17	14	5		
15	0.77	TO BE SEEN IN PUBLIC WITH HIM.	61	1.88	1	3	8	30	22	9	6		
12	0.75	TO ACCEPT HIM AS A MEMBER OF MY COMMUNITY.	62	1.48	7	11	15	24	12	5	8		
5	0.75	TO EAT LUNCH AT THE SAME TABLE WITH HIM.	63	2.40	1	1	4	25	14	24	15		
28	0.74	TO ATTEND A SPORTS ACTIVITY WITH HIM.	64	2.65	1	2	2	14	19	9	34		
48	0.73	TO EXPERIENCE THAT FREEDOM OF SPEECH, THOUGHT, AND ASSOCIATION IS UNLIMITED.	65	2.53	0	1	2	24	18	23	14		
22	0.64	TO ACCEPT HIM AS MY FAMILY'S FRIEND.	66	1.85	1	3	4	31	27	9	3		
14	0.59	TO HAVE MY CHILDREN GO TO SCHOOL WITH HIS CHILDREN.	67	1.41	4	3	6	68	3	1	0		
4	0.53	TO HAVE MY CHILDREN TO BE CLOSE FRIENDS WITH HIS CHILDREN.	68	1.95	0	1	2	41	19	9	3		
21	0.53	TO HAVE MY CHILDREN PLAY WITH HIS CHILDREN.	69	0.80	20	17	7	29	3	3	2		
51	0.53	TO EXPERIENCE THAT STUDENT-PROFESSOR RELATIONS ARE GENERALLY INFORMAL AT NPS.	70	2.17	2	1	6	26	23	16	9		
10	0.51	TO INVITE HIM TO A DINNER PARTY AT MY HOME.	71	3.22	0	0	2	9	9	13	47		
53	0.36	TO REALIZE THAT IN THEIR EVERY DAY RELATIONS, PEOPLE TREAT EACH OTHER AS EQUALS.	72	2.60	1	1	1	24	15	15	23		

560.....END JOB NGANDANI.....END JOB NGANDANI.....END JOB NGANDANI.....END JOB NGANDANI.....END JOB NGANDANI.....  
560.....END JOB NGANDANI.....END JOB NGANDANI.....END JOB NGANDANI.....END JOB NGANDANI.....END JOB NGANDANI.....



# APPENDIX F

## SCALE VALUES OF INDONESIAN STUDENTS AT THE NAVAL POSTGRADUATE SCHOOL SEPTEMBER 1976

RANK-ORDERED	SCALE VALUES	STATEMENTS	ITEM-ORDERED	1	2	3	4	5	6	7
71	2.98	TO HEAR THAT NO ONE IS TAKING CARE OF YOUR FAHILY BACK HOME, WHILE YOU STUDY HERE FOR 2 OR 3 YEARS.	1	1.22	3	2	0	10	1	0
45	2.62	TO EXPERIENCE THAT HE/SHE IS NOT REALLY INTERESTED IN YOUR COUNTRY.	2	2.31	0	1	1	0	1	2
46	2.61	TO EXPERIENCE THAT YOU MUST WAIT FOR 2 HOURS FOR THE BUS TO GO TO THE COMMISSARY WHICH IS 8 MILES OUT OF TOWN.	3	0.81	3	6	1	7	0	0
72	2.34	TO FEEL: DETERIORATION OF INTERN'L RELATIONSHIPS OF YOUR COUNTRY W/ AMERICA, RESULTS IN DEPERSONALIZATION OF FRIENDSHIPS W/ YOUR AMERICAN CLASSMATES.	4	0.33	6	5	2	4	0	0
54	2.32	EXPERIENCE: EXTREMELY DIFFICULT TO RENT AN APARTMENT WHICH ALLOWS CHILDREN, MORE EASIER TO RENT APARTMENTS WITH PETS ALLOWED.	5	0.70	4	5	3	6	0	0
2	2.31	TO HAVE MY DAUGHTER MARRY HIS SON.	6	1.52	3	2	2	4	3	1
65	2.30	TO FEEL THAT IN LOSING ACADEMIC STATUS MY COLLEAGUES THINK OF ME AS LESS INTELLIGENT THAN DID MY CLASSMATES OR TEACHERS AT HOME.	7	2.00	0	1	4	6	3	2
64	2.25	TO FEEL THAT MOST AMERICANS DO NOT THINK WELL OF MY COUNTRY, BECAUSE THEY FEEL THAT THEY ARE SUPERIOR, AND THEY LET ME KNOW IT.	8	1.52	1	2	3	9	0	0
37	2.21	TO BE INVITED BY HIM TO EAT DINNER OF FOOD THAT IS NOT YOUR NATIVE FOOD AND THAT YOU DO NOT LIKE.	9	1.29	1	2	5	8	1	1
63	2.13	TO KNOW THAT MY RACE OR FOREIGN APPEARANCE CAUSES LIMITED CONTACTS WITH AMERICANS OR SPECIAL AREAS OF AMERICAN LIFE.	10	0.55	5	2	8	3	0	0
56	2.11	TO REALIZE THAT THE UNITED STATES FOREIGN POLICY TOWARD MY COUNTRY REFLECTS LITTLE UNDERSTANDING.	11	1.37	1	5	4	4	2	1
43	2.11	EXPERIENCE: YOUR FOOD THAT YOU PREPARED WAS VERY HIGHLY PRAISED FOR ITS DELICIOUSNESS BEFORE HE/SHE TRIED IT, AFTER THAT HAVE FOOD DE HARDLY TOUCHED.	12	0.91	2	2	8	5	1	0
42	2.01	TO EXPERIENCE THAT YOUR FOOD THAT YOU PREPARED WAS HARDLY TOUCHED BY YOUR SPONSOR BECAUSE OF DIFFERENT TASTES.	13	0.87	0	7	5	4	2	0
68	2.00	TO EXPERIENCE THAT MANY INTERNATIONAL STUDENTS FIND THAT DATING IN THE UNITED STATES CREATES AN AREA OF CONSIDERABLE MALADJUSTMENTS.	14	0.63	5	1	7	4	0	0
7	2.00	TO OPENLY CONVERSE AND DISCLOSE MY PERSONAL FEELING TO HIM.	15	1.04	3	2	5	6	2	0
70	1.99	TO KNOW THAT BRINGING WIVES SOMETIMES CAUSES ISOLATION FROM THE AMERICAN SCENE, ESPECIALLY WHEN WIVES ARE INADEQUATE IN ENGLISH+EDUCATIONAL BACKGR.	16	1.23	1	3	6	5	2	1
44	1.96	TO EXPERIENCE THAT YOU CANNOT EXPRESS YOUR OPINION VERY WELL IN CLASS ALTHOUGH YOU KNOW THE ANSWER.	17	0.99	3	3	5	6	0	1
35	1.95	TO EXPERIENCE THAT YOUR SPONSOR DID NOT CONTACT YOU FOR MORE THAN ONE MONTH.	18	1.19	2	2	3	9	1	1
59	1.89	TO COME TO THE OPINION THAT THE BUSINESSMAN AND MANUFACTURER ARE CONSIDERED MORE IMPORTANT THAN THE ARTIST AND PHILOSOPHER.	19	1.00	3	3	2	7	2	0
66	1.87	TO FEEL THAT THE ACADEMIC ROUTINE IS SO DIFFERENT FROM THOSE AT HOME, THAT I CANNOT ACCEPT THE AMERICAN WAY OF DOING THINGS.	20	1.05	1	6	3	5	2	0
25	1.86	TO SHARE AN APARTMENT WITH HIM.	21	0.78	3	3	5	5	1	0
58	1.81	TO REALIZE THAT THE WAY IN WHICH U.S. FOREIGN POLICY IS CONDUCTED IS USUALLY PENETRATING, CAREFUL.	22	0.95	3	2	6	6	0	0
60	1.79	TO EXPERIENCE THAT MOST FREE TIME ACTIVITIES TAKE PLACE OUTSIDE THE HOME AND FAMILY.	23	1.72	1	1	2	9	0	1
24	1.75	TO HAVE MY LAUGHTER DATE HIS SON.	24	1.75	0	0	5	8	1	1
23	1.72	TO MARRY HIM/HER.	25	1.86	1	1	1	8	2	4







S C A L E V A L U E S		S T A T E M E N T S		F R E Q U E N C I E S									
RANK-ORDERED		ITEM-ORDERED		1	2	3	4	5	6	7			
36	1.72	TO BE INVITED BY YOUR SPONSOR TO EAT DINNER OF FOOD WITH WHICH YOU ARE NOT FAMILIAR.	26	0.95	2	5	4	4	1	1	0		
33	1.70	TO KNOW THAT UPON ARRIVING FOR THE FIRST TIME AT THE AIRPORT, NO ONE IS TO MEET YOU.	27	0.77	1	8	5	1	0	0	0		
61	1.69	TO REALIZE THAT LIFE IS SO NARROWLY ACADEMIC IN COMPARISON WITH SOCIAL LIFE AND LEISURE TIME ACTIVITIES.	28	0.72	3	4	6	4	0	0	0		
48	1.66	TO EXPERIENCE THAT FREEDOM OF SPEECH, THOUGHT, AND ASSOCIATION IS UNLIMITED.	29	1.04	1	4	8	4	0	0	0		
57	1.65	TO REALIZE THAT U.S. AID TO OTHER COUNTRIES IS GIVEN MORE BECAUSE OF UNITED STATES OWN NATIONAL INTEREST.	30	1.50	0	5	1	7	1	2	1		
38	1.60	TO EXPERIENCE THAT YOU ARE NOT INVITED TO COME IN HIS/HER HOUSE BECAUSE YOU DID NOT MADE AN APPOINTMENT BEFOREHAND.	31	1.04	2	4	4	7	0	0	0		
39	1.59	TO EXPERIENCE THAT YOU JOIN A PARTY AT WHICH STRONG LIQUORS ARE THE ONLY BEVERAGE.	32	1.56	0	4	1	7	3	1	1		
55	1.59	TO NOTICE THAT IN ECONOMIC MATTERS, PEOPLE TEND TO BE AMBITIOUS.	33	1.70	3	1	2	4	3	3	2		
32	1.56	TO ACCEPT HIM AS A ROOMMATE.	34	1.49	3	1	1	4	8	0	1		
62	1.56	TO SEE THAT AS AN APPROACH TO WORLD COOPERATION AND PEACE, THE UNITED NATIONS IS GENERALLY VIEWED AS A REALISTIC APPROACH.	35	1.95	0	2	2	4	5	4	1		
41	1.52	EXPERIENCE: FRIENDLINESS*OPEN MINDEDNESS OF YOUR SPONSOR*WIFE FOR THE 1ST 2-3 MONTHS, BUT THEN BIT BY BIT BECOME FORMAL DUE TO CULTURAL DIFFERENCES.	36	1.72	0	5	2	6	1	1	3		
6	1.52	TO RENT A ROOM WITH HIM.	37	2.21	0	0	4	5	4	1	4		
8	1.52	TO HAVE HIM AS MY EMPLOYER.	38	1.60	0	2	5	7	1	0	2		
30	1.50	TO OPENLY DISCUSS POLITICS WITH HIM.	39	1.59	1	2	3	5	4	1	1		
34	1.49	TO KNOW THAT YOU HAVE TO LOOK FOR AN APPARTMENT BY YOURSELF.	40	1.48	2	3	1	7	2	0	2		
40	1.48	TO JOIN A PARTY AT WHICH THE CUSTOMS ARE VERY DIFFERENT THAN YOURS.	41	1.52	1	1	3	8	3	0	1		
52	1.39	TO NOTICE THAT WHEN MEETING STRANGERS, MOST PEOPLE HESITATE TO SHOW FRIENDLINESS.	42	2.01	0	2	0	8	4	1	2		
49	1.38	TO REALIZE THAT IN BRINGING UP THEIR CHILDREN, A HERICAN PARENTS USUALLY ALLOW THEM MUCH FREEDOM.	43	2.11	0	1	1	7	3	4	1		
11	1.37	TO ASK HIM TO JOIN A PRIVATE CLUB TO WHICH I BELONG.	44	1.96	2	2	1	1	3	7	2		
9	1.29	TO PERFORM A SERVICE FOR HIM AS PART OF MY JOB.	45	2.62	0	1	0	4	5	3	5		
67	1.24	TO EXPERIENCE THAT EATING WITH THE LEFT HAND IS NORMAL IN AMERICA.	46	2.61	0	0	2	4	3	3	5		
16	1.23	TO INVITE HIM TO GO WITH ME ON AN EXTENSIVE TRIP TO ANOTHER CCOUNTRY.	47	1.21	3	3	6	3	0	2	1		
1	1.22	TO USE THE SAME DENTIST.	48	1.66	3	1	1	3	4	2	2		
47	1.21	TO KNOW THAT HE/SHE IS ALWAYS STRAIGHT FORWARD.	49	1.38	0	1	6	8	1	1	0		



S C A L E V A L U E S                      S T A T E M E N T S                      F R E Q U E N C I E S

RANK-ORDERED	ITEM-ORDERED	STATEMENTS	1	2	3	4	5	6	7
18	1.19	TO INVITE HIM OVER TO WATCH TELEVISION IN MY HOME.	50	1.07	2	4	4	3	0
50	1.07	TO REALIZE THAT FINANCIAL SUCCESS AS AN OBJECTIVE IN LIFE IS GENERALLY IMPORTANT HERE.	51	0.88	2	7	4	1	2
20	1.05	TO DO BUSINESS WITH HIM.	52	1.39	0	4	2	7	3
15	1.04	TO BE SEEN IN PUBLIC WITH HIM.	51	0.08	3	10	3	1	0
31	1.04	TO WORK IN THE SAME OFFICE WITH HIM.	54	2.32	0	3	2	0	3
29	1.04	TO ASK HIM TO JOIN ME FOR LUNCH.	55	1.59	1	2	4	5	4
69	1.02	TO KNOW THAT STUDENTS FROM CERTAIN COUNTRIES DRI- NGING WIVES THAT ACCOMPANYING THEIR HUSBANDS PERMITS NORMAL SEXUAL LIFE.	56	2.11	1	1	1	1	9
19	1.00	TO LIVE NEXT DOOR TO HIM.	57	1.65	2	2	1	8	2
17	0.99	TO HAVE HIM TEACH MY CHILDREN.	58	1.81	1	1	3	7	2
22	0.95	TO ACCEPT HIM AS MY FAMILY'S FRIEND.	59	1.89	0	3	1	7	4
26	0.95	TO ACCEPT HIM AS AN INTIMATE FRIEND.	60	1.79	1	2	2	7	3
12	0.91	TO ACCEPT HIM AS A MEMBER OF MY COMMUNITY.	61	1.69	0	3	1	7	4
51	0.88	TO EXPERIENCE THAT STUDENT-PROFESSOR RELATIONS ARE GENERALLY INFORMAL AT NPS.	62	1.56	2	3	2	4	3
13	0.87	TO DOUBLE WITH HIM ON A DATE.	63	2.13	0	1	3	4	4
3	0.81	TO BOWL ON THE SAME TEAM WITH HIM.	64	2.25	1	1	1	1	5
21	0.78	TO HAVE MY CHILDREN PLAY WITH HIS CHILDREN.	65	2.30	0	1	1	3	6
27	0.77	TO ACCEPT HIM AS MY WORK SUPERVISOR.	66	1.87	0	1	3	5	5
28	0.72	TO ATTEND A SPORTS ACTIVITY WITH HIM.	67	1.24	2	1	4	9	1
5	0.70	TO EAT LUNCH AT THE SAME TABLE WITH HIM.	68	2.00	0	0	2	7	6
14	0.63	TO HAVE MY CHILDREN GO TO SCHOOL WITH HIS CHILDREN.	69	1.02	2	6	1	7	1
10	0.55	TO INVITE HIM TO A DINNER PARTY AT MY HOME.	70	1.99	1	1	1	5	6
4	0.33	TO HAVE MY CHILDREN TO BE CLOSE FRIENDS WITH HIS CHILDREN.	71	2.98	0	0	1	1	6
53	0.08	TO REALIZE THAT IN THEIR EVERY DAY RELATIONS, PEOPLE TREAT EACH OTHER AS EQUALS.	72	2.34	1	0	0	6	5

603.....END JOB NGANDANI.....END JOB NGANDANI.....END JOB NGANDANI.....END JOB NGANDANI.....  
603.....END JOB NGANDANI.....END JOB NGANDANI.....END JOB NGANDANI.....END JOB NGANDANI.....



# APPENDIX G

## SCALE VALUES OF INDONESIAN STUDENTS AT THE NAVAL POSTGRADUATE SCHOOL FEBRUARY 1977

RANK-CRITERION	STATEMENTS	FREQUENCIES
71	3.71 TO HEAR THAT NO ONE IS TAKING CARE OF YOUR FAMILY BACK HOME, WHILE YOU STUDY HERE FOR 2 OR 3 YEARS.	1 2 3 4 5 6 7
46	3.03 TO EXPERIENCE THAT YOU MUST WAIT FOR 2 HOURS FOR THE BUS TO GO TO THE COMMISSARY WHICH IS 8 MILES OUT OF TOWN.	1 0 1 5 4 3 3
72	2.54 TO FEEL: DETERIORATION OF INTERN'L RELATIONSHIPS OF YOUR COUNTRY W AMERICA, RESULTS IN DEPERSONALIZATION OF FRIENDSHIPS W YOUR AMERICAN CLASSMATES.	1 35 2 1 10 0 0
56	2.88 TO REALIZE THAT THE UNITED STATES FOREIGN POLICY TOWARD MY COUNTRY REFLECTS LITTLE UNDERSTANDING.	4 0 11 3 8 0 5 1 0 0
64	2.78 TO FEEL THAT MOST AMERICANS DO NOT THINK WELL OF MY COUNTRY, BECAUSE THEY FEEL THAT THEY ARE SUPERIOR, AND THEY LET ME KNOW IT.	5 0 86 4 4 2 6 1 0 0
35	2.71 TO EXPERIENCE THAT YOUR SPONSOR DID NOT CONTACT YOU FOR MORE THAN ONE MONTH.	6 1 64 3 2 1 7 2 1 1
66	2.68 TO FEEL THAT THE ACADEMIC ROUTINE IS SO DIFFERENT FROM THOSE AT HOME, THAT I CANNOT ACCEPT THE AMERICAN WAY OF DOING THINGS.	7 2 34 0 2 3 4 4 1 3
24	2.67 TO HAVE MY DAUGHTER DATE HIS SON.	8 1 60 1 2 5 7 1 0 1
54	2.65 EXPERIENCE: EXTREMELY DIFFICULT TO RENT AN APARTMENT WHICH ALLOWS CHILDREN, MORE EASIER TO RENT APARTMENTS WITH PETS ALLOWED.	9 1 68 1 4 2 7 1 1 1
45	2.61 TO EXPERIENCE THAT HE/SHE IS NOT REALLY INTERESTED IN YOUR COUNTRY.	10 0 05 5 8 3 1 0 0 0
34	2.59 TO KNOW THAT YOU HAVE TO LOOK FOR AN APARTMENT BY YOURSELF.	11 0 85 5 5 2 2 3 0 0
23	2.55 TO MARRY HIM/HER.	12 0 67 3 6 5 3 0 0 0
41	2.54 EXPERIENCE: FRIENDLINESS*OPEN MINDEDNESS OF YOUR SPONSOR*WIFE FOR THE 1ST 2-3 MONTHS, BUT THEN BIT BY BIT BECAME FORMAL DUE TO CULTURAL DIFFERENCES.	13 0 99 4 4 5 3 0 0 0
38	2.45 TO EXPERIENCE THAT YOU ARE NOT INVITED TO CGME IN HIS/HER HOUSE BECAUSE YOU DID NOT MADE AN APPOINTMENT BEFOREHAND.	14 0 28 5 7 3 2 0 0 0
2	2.45 TO HAVE MY DAUGHTER MARRY HIS SON.	15 0 70 4 6 2 5 0 0 0
65	2.45 TO FEEL THAT IN LOSING ACADEMIC STATUS MY CCL-LEAGUES THINK OF ME AS LESS INTELLIGENT THAN DID MY CLASSMATES OR TEACHERS AT HOME.	16 0 53 4 3 5 3 2 0 0
42	2.44 TO EXPERIENCE THAT YOUR FOOD THAT YOU PREPARED WAS HARDLY TOUCHED BY YOUR SPONSOR BECAUSE OF DIFFERENT TASTES.	17 0 70 4 6 2 5 0 0 0
33	2.43 TO KNOW THAT UPON ARRIVING FOR THE FIRST TIME AT THE AIRPORT, NO ONE IS TO MEET YOU.	18 0 83 3 5 4 4 1 0 0
44	2.43 TO EXPERIENCE THAT YOU CANNOT EXPRESS YOUR OPINION VERY WELL IN CLASS ALTHOUGH YOU KNOW THE ANSWER.	19 1 06 3 4 2 8 0 0 0
39	2.41 TO EXPERIENCE THAT YOU JOIN A PARTY AT WHICH STRONG LIQUORS ARE THE ONLY BEVERAGE.	20 1 11 1 5 5 5 1 0 0
43	2.41 EXPERIENCE: YOUR FOOD THAT YOU PREPARED WAS VERY HIGHLY PRAISED FOR ITS DELICIOUSNESS BEFORE HE/SHE TRIED IT, AFTER THAT I HAVE FOOD HARDLY TOUCHED.	21 0 55 5 5 3 4 0 0 0
37	2.38 TO BE INVITED BY HIM TO EAT DINNER OF FOOD THAT IS NOT YOUR NATIVE FOOD AND THAT YOU DO NOT LIKE.	22 0 48 5 5 4 3 0 0 0
7	2.34 TO OPENLY CONVERSE AND DISCLOSE MY PERSONAL FEELING TO HIM.	23 2 55 0 1 1 6 3 3 2
61	2.34 TO REALIZE THAT LIFE IS SO NARROWLY ACADEMIC IN COMPARISON WITH SOCIAL LIFE AND LEISURE TIME ACTIVITIES.	24 2 67 0 0 2 5 4 3 2
68	2.30 TO EXPERIENCE THAT MANY INTERNATIONAL STUDENTS FIND THAT EATING IN THE UNITED STATES CREATES AN AREA OF CONSIDERABLE MALADJUSTMENTS.	25 1 82 2 1 2 7 3 1 1









S C A L E V A L U E S

STATEMENTS

F R E Q U E N C I E S

RANK-CRORDER	STATEMENTS	1	2	3	4	5	6	7
53	1-20 TO REALIZE THAT IN THEIR EVERY DAY RELATIONS, PEOPLE TREAT EACH OTHER AS EQUALS.	50	1.65	1	1	4	8	2
21	1-15 TO WORK IN THE SAME OFFICE WITH HIM.	51	1.22	1	6	5	3	1
20	1-11 TO DO BUSINESS WITH HIM.	52	1.84	0	3	4	4	2
62	1-07 TO SEE THAT AS AN APPROACH TO WORLD COOPERATION AND PEACE, THE UNITED NATIONS IS GENERALLY VIEWED AS A REALISTIC APPROACH.	53	1.20	2	7	3	4	0
19	1-06 TO LIVE NEXT DOOR TO HIM.	54	2.65	1	1	0	3	2
27	1-01 TO ACCEPT HIM AS MY WORK SUPERVISOR.	55	1.52	1	1	3	7	3
13	C-55 TO DOUBLE WITH HIM ON A DATE.	56	2.88	0	1	0	3	6
29	C-55 TO ASK HIM TO JOIN ME FOR LUNCH.	57	1.91	1	1	0	10	4
16	0-53 TO INVITE HIM TO GO WITH ME ON AN EXTENSIVE TRIP TO ANOTHER COUNTRY.	58	2.16	0	1	3	8	2
5	0-86 TO EAT LUNCH AT THE SAME TABLE WITH HIM.	59	2.20	1	0	1	8	4
11	C-65 TO ASK HIM TO JOIN A PRIVATE CLUB TO WHICH I BELONG.	60	1.80	1	0	4	8	3
1	0-84 TO USE THE SAME DENTIST.	61	2.34	0	1	1	9	6
48	C-83 TO INVITE HIM EVER TO WATCH TELEVISION IN MY HOME.	62	1.07	1	5	6	4	1
69	0-79 TO KNOW THAT STUDENTS FROM CERTAIN COUNTRIES BRINGING WIVES THAT ACCOMPANYING THEIR HUSBANDS PERMITS NORMAL SEXUAL LIFE.	63	2.17	1	0	2	4	8
4	0-77 TO HAVE MY CHILDREN TO BE CLOSE FRIENDS WITH HIS CHILDREN.	64	2.78	0	2	0	3	4
17	0-70 TO HAVE HIM TEACH MY CHILDREN.	65	2.45	1	0	0	6	3
15	0-70 TO BE SEEN IN PUBLIC WITH HIM.	66	2.68	0	0	1	8	0
12	C-67 TO ACCEPT HIM AS A MEMBER OF MY COMMUNITY.	67	1.65	1	2	1	11	2
28	0-64 TO ATTEND A SPORTS ACTIVITY WITH HIM.	68	2.30	0	1	1	7	6
21	C-55 TO HAVE MY CHILDREN PLAY WITH HIS CHILDREN.	69	0.79	3	6	3	3	1
22	C-48 TO ACCEPT HIM AS MY FAMILY'S FRIEND.	70	2.16	1	1	2	5	3
14	C-28 TO HAVE MY CHILDREN GO TO SCHOOL WITH HIS CHILDREN.	71	3.77	0	0	0	3	2
10	0-05 TO INVITE HIM TO A DINNER PARTY AT MY HOME.	72	2.54	0	0	1	4	4

225.....END JCB NGANDANI.....END JOB NGANDANI.....END JCB NGANDANI.....END JOB NGANDANI.....  
 325.....END JCB NGANDANI.....END JOB NGANDANI.....END JCB NGANDANI.....END JOB NGANDANI.....



## APPENDIX H

SCALE VALUES OF INDONESIAN STUDENTS  
AT STANFORD UNIVERSITY

RANK-ORDERED	ITEM-ORDERED	1	2	3	4	5	6	7		
46	4.34 TO EXPERIENCE THAT YOU MUST WAIT FOR 2 HOURS FOR THE BUS TO GO TO THE COMMISSARY WHICH IS 8 MILES OUT OF TOWN.	1	0.47	0	4	0	1	0	0	0
54	4.03 EXPERIENCE: EXTREMELY DIFFICULT TO RENT AN APARTMENT WHICH ALLOWS CHILDREN, MORE EASIER TO RENT APARTMENTS WITH PETS ALLOWED.	2	3.04	0	1	0	0	1	1	2
39	4.00 TO EXPERIENCE THAT YOU JOIN A PARTY AT WHICH STRONG LIQUORS ARE THE ONLY BEVERAGE.	3	1.46	0	2	1	1	1	0	0
64	4.00 TO FEEL THAT MOST AMERICANS DO NOT THINK WELL OF MY COUNTRY, BECAUSE THEY FEEL THAT THEY ARE SUPERIOR, AND THEY LET ME KNOW IT.	4	0.59	1	3	0	1	0	0	0
71	3.84 TO HEAR THAT NO ONE IS TAKING CARE OF YOUR FAMILY BACK HOME, WHILE YOU STUDY HERE FOR 2 OR 3 YEARS.	5	1.15	1	1	1	2	0	0	0
8	3.83 TO HAVE HIM AS MY EMPLOYER.	6	2.30	1	0	1	0	1	1	1
24	3.80 TO HAVE MY DAUGHTER DATE HIS SON.	7	2.60	0	0	2	0	1	2	0
35	3.58 TO EXPERIENCE THAT YOUR SPONSOR DID NOT CONTACT YOU FOR MORE THAN ONE MONTH.	8	3.83	0	0	0	1	0	2	2
26	3.44 TO ACCEPT HIM AS AN INTIMATE FRIEND.	9	2.44	0	0	0	3	1	1	0
23	3.35 TO MARRY HIM/HER.	10	1.06	0	3	0	2	0	0	0
27	3.27 TO ACCEPT HIM AS MY WORK SUPERVISOR.	11	2.44	0	0	1	2	1	1	0
42	3.27 TO EXPERIENCE THAT YOUR FOOD THAT YOU PREPARED WAS HARDLY TOUCHED BY YOUR SPONSOR BECAUSE OF DIFFERENT TASTES.	12	2.03	0	2	1	1	0	0	1
63	3.27 TO KNOW THAT MY RACE OR FOREIGN APPEARANCE CAUSES LIMITED CONTACTS WITH AMERICANS OR SPECIAL AREAS OF AMERICAN LIFE.	13	2.92	0	1	0	1	0	1	2
65	3.27 TO FEEL THAT IN LOSING ACADEMIC STATUS MY COLLEAGUES THINK OF ME AS LESS INTELLIGENT THAN DID MY CLASSMATES OR TEACHERS AT HOME.	14	0.43	3	0	1	1	0	0	0
59	3.24 TO COME TO THE OPINION THAT THE BUSINESSMAN AND MANUFACTURER ARE CONSIDERED MORE IMPORTANT THAN THE ARTIST AND PHILOSOPHER.	15	2.15	0	1	0	4	0	0	0
2	3.04 TO HAVE MY DAUGHTER MARRY HIS SON.	16	2.79	0	0	1	2	0	1	1
52	2.99 TO NOTICE THAT WHEN MEETING STRANGERS, MOST PEOPLE HESITATE TO SHOW FRIENDLINESS.	17	0.59	1	3	0	1	0	0	0
13	2.92 TO DOUBLE WITH HIM ON A DATE.	18	2.69	0	0	0	2	2	1	0
44	2.91 TO EXPERIENCE THAT YOU CANNOT EXPRESS YOUR OPINION VERY WELL IN CLASS ALTHOUGH YOU KNOW THE ANSWER.	19	1.71	1	0	0	4	0	0	0
16	2.79 TO INVITE HIM TO GO WITH ME ON AN EXTENSIVE TRIP TO ANOTHER COUNTRY.	20	2.09	0	0	1	3	1	0	0
72	2.74 TO FEEL: CETERIORATION OF INTERN'L RELATIONSHIPS OF YOUR COUNTRY & AMERICA, RESULTS IN DEPERSONALIZATION OF FRIENDSHIPS & YOUR AMERICAN CLASSMATES.	21	0.22	2	2	1	0	0	0	0
38	2.70 TO EXPERIENCE THAT YOU ARE NOT INVITED TO COME IN HIS/HER HOUSE BECAUSE YOU DID NOT MAKE AN APPOINTMENT BEFOREHAND.	22	2.22	0	0	3	1	0	0	1
61	2.69 TO REALIZE THAT LIFE IS SO NARROWLY ACADEMIC IN COMPARISON WITH SOCIAL LIFE AND LEISURE TIME ACTIVITIES.	23	3.35	0	0	0	1	1	1	1
18	2.69 TO INVITE HIM OVER TO WATCH TELEVISION IN MY HOME.	24	3.80	0	0	0	1	1	0	3
7	2.60 TO OPENLY CONVERSE AND DISCLOSE MY PERSONAL FEELING TO HIM.	25	2.38	1	0	1	0	0	2	1



S C A L E V A L U E S                      S T A T E M E N T S                      F R E Q U E N C I E S

RANK-ORDERED	ITEM-ORDERED	1	2	3	4	5	6	7
32	2.58	TO ACCEPT HIM AS A ROOMMATE.						
62	2.49	TO SEE THAT AS AN APPROACH TO WORLD COOPERATION AND PEACE, THE UNITED NATIONS IS GENERALLY VIEWED AS A REALISTIC APPROACH.						
55	2.44	TO NOTICE THAT IN ECONOMIC MATTERS, PEOPLE TEND TO BE AMBITIOUS.						
9	2.44	TO PERFORM A SERVICE FOR HIM AS PART OF MY JOB.						
45	2.44	TO EXPERIENCE THAT HE/SHE IS NOT REALLY INTERESTED IN YOUR COUNTRY.						
11	2.44	TO ASK HIM TO JOIN A PRIVATE CLUB TO WHICH I BELONG.						
57	2.39	TO REALIZE THAT U.S. AID TO OTHER COUNTRIES IS GIVEN MORE BECAUSE OF UNITED STATES OWN NATIONAL INTEREST.						
25	2.38	TO SHARE AN APARTMENT WITH HIM.						
56	2.31	TO REALIZE THAT THE UNITED STATES FOREIGN POLICY TOWARD MY COUNTRY REFLECTS LITTLE UNDERSTANDING.						
37	2.30	TO BE INVITED BY HIM TO EAT DINNER OF FOOD THAT IS NOT YOUR NATIVE FOOD AND THAT YOU DO NOT LIKE.						
6	2.30	TO RENT A ROOM WITH HIM.						
22	2.22	TO ACCEPT HIM AS MY FAMILY'S FRIEND.						
15	2.15	TO BE SEEN IN PUBLIC WITH HIM.						
31	2.15	TO WORK IN THE SAME OFFICE WITH HIM.						
48	2.15	TO EXPERIENCE THAT FREEDOM OF SPEECH, THOUGHT, AND ASSOCIATION IS UNLIMITED.						
34	2.15	TO KNOW THAT YOU HAVE TO LOOK FOR AN APARTMENT BY YOURSELF.						
68	2.15	TO EXPERIENCE THAT MANY INTERNATIONAL STUDENTS FIND THAT DATING IN THE UNITED STATES CREATES AN AREA OF CONSIDERABLE MALADJUSTMENTS.						
20	2.09	TO DO BUSINESS WITH HIM.						
66	2.09	TO FEEL THAT THE ACADEMIC ROUTINE IS SO DIFFERENT FROM THOSE AT HOME, THAT I CANNOT ACCEPT THE AMERICAN WAY OF DOING THINGS.						
12	2.03	TO ACCEPT HIM AS A MEMBER OF MY COMMUNITY.						
58	2.02	TO REALIZE THAT THE WAY IN WHICH U.S. FOREIGN POLICY IS CONDUCTED IS USUALLY PENETRATING, CAREFUL.						
41	1.89	EXPERIENCE: FRIENDLINESS+OPEN MINDEDNESS OF YOUR SPONSOR+WIFE FOR THE 1ST 2-3 MONTHS, BUT THEN HIT BY FIT BECOME FORMAL DUE TO CULTURAL DIFFERENCES.						
70	1.86	TO KNOW THAT BRINGING WIVES, SOMETIMES CAUSES ISOLATION FROM THE AMERICAN SCENE, ESPECIALLY WHEN WIVES ARE INADEQUATE IN ENGLISH+EDUCATIONAL BACKGN.						
29	1.82	TO ASK HIM TO JOIN ME FOR LUNCH.						









SCALE VALUES OF  
EUROPEAN/CANADIAN/AUSTRALIAN STUDENTS  
AT THE NAVAL POSTGRADUATE SCHOOL

SCALE VALUES		STATEMENTS		FREQUENCIES									
RANK-CRDERED		ITEM-CRDERED		1	2	3	4	5	6	7			
71	4.74	TO HEAR THAT NO ONE IS TAKING CARE OF YOUR FAMILY BACK HOME, WHILE YOU STUDY HERE FOR 2 OR 3 YEARS.	1	1-15	4	2	1	15	0	0			
64	3.57	TO FEEL THAT MOST AMERICANS DO NOT THINK WELL OF MY COUNTRY, BECAUSE THEY FEEL THAT THEY ARE SUPERIOR, AND THEY LET ME KNOW IT.	2	1-27	0	0	3	15	3	1	0		
54	3.45	EXPERIENCE: EXTREMELY DIFFICULT TO RENT AN APARTMENT WHICH ALLOWS CHILDREN, MORE EASIER TO RENT APARTMENTS WITH PETS ALLOWED.	3	0-67	7	1	4	5	0	1	0		
44	3.02	TO EXPERIENCE THAT YOU CANNOT EXPRESS YOUR OPINION VERY WELL IN CLASS ALTHOUGH YOU KNOW THE ANSWER.	4	0-26	10	2	2	7	1	0	0		
43	2.59	TO KNOW THAT MY RACE OR FOREIGN APPEARANCE CAUSES LIMITED CONTACTS WITH AMERICANS OR SPECIAL AREAS OF AMERICAN LIFE.	5	0-21	11	2	1	8	0	0	0		
43	2.53	EXPERIENCE: YOUR FOOD THAT YOU PREPARED WAS VERY HIGHLY PRAISED FOR ITS DELICIOUSNESS BEFORE HE/SHE TRIED IT, AFTER THAT I HAVE FOOD BE HARDLY TOUCHED.	6	1-27	1	2	3	12	2	1	0		
65	2.85	TO FEEL THAT IN LOSING ACADEMIC STATUS MY COLLEAGUES THINK OF ME AS LESS INTELLIGENT THAN DID MY CLASSMATES OR TEACHERS AT HOME.	7	1-55	5	4	5	6	3	1	2		
56	2.77	TO REALIZE THAT THE UNITED STATES FOREIGN POLICY TOWARD MY COUNTRY REFLECTS LITTLE UNDERSTANDING.	8	1-42	2	2	1	11	5	0	0		
72	2.73	TO FEEL: CETERIFICATION OF INTERN'L RELATIONSHIPS OF YOUR COUNTRY W AMERICA, RESULTS IN DEPERSONALIZATION OF FRIENDSHIPS W YOUR AMERICAN CLASSMATES.	9	0-65	5	2	4	9	1	0	0		
70	2.72	TO KNOW THAT BRINGING WIVES, SOMETIMES CAUSES ISOLATION FROM THE AMERICAN SCENE, ESPECIALLY WHEN WIVES ARE INADEQUATE IN ENGLISH+EDUCATIONAL BACKGN.	10	0-28	10	2	2	6	1	0	0		
45	2.56	TO EXPERIENCE THAT HE/SHE IS NOT REALLY INTERESTED IN YOUR COUNTRY.	11	0-50	5	7	0	8	1	0	0		
38	2.53	TO EXPERIENCE THAT YOU ARE NOT INVITED TO COME IN FISHER HOUSE BECAUSE YOU DID NOT MAKE AN APPOINTMENT BEFOREHAND.	12	0-67	9	1	1	7	3	0	0		
46	2.52	TO EXPERIENCE THAT YOU MUST WAIT FOR 2 HOURS FOR THE BUS TO GO TO THE COMMISSARY WHICH IS 8 MILES OUT OF TOWN.	13	1-04	3	3	1	12	2	0	0		
33	2.49	TO KNOW THAT UPON ARRIVING FOR THE FIRST TIME AT THE AIRPORT, NO ONE IS TO MEET YOU.	14	0-69	9	2	1	8	0	0	1		
35	2.45	TO EXPERIENCE THAT YOUR SPONSOR DID NOT CONTACT YOU FOR MORE THAN ONE MONTH.	15	0-64	7	3	1	10	0	0	0		
41	2.32	EXPERIENCE: FRIENDLINESS+OPEN MINDEDNESS OF YOUR SPONSOR+LIFE FOR THE 1ST 2-3 MONTHS, BUT THEN BIT BY BIT BECOME FORMAL DUE TO CULTURAL DIFFERENCES.	16	1-69	1	5	6	6	0	2			
42	2.25	TO EXPERIENCE THAT YOUR FOOD THAT YOU PREPARED WAS HARDLY TOUCHED BY YOUR SPONSOR BECAUSE OF DIFFERENT TASTES.	17	1-30	2	4	3	8	2	0	2		
60	2.16	TO EXPERIENCE THAT MOST FREE TIME ACTIVITIES TAKE PLACE OUTSIDE THE HOME AND FAMILY.	18	0-55	4	6	0	9	1	0	1		
52	2.13	TO NOTICE THAT WHEN MEETING STRANGERS, MOST PEOPLE HESITATE TO SHOW FRIENDLINESS.	19	0-76	5	4	3	7	1	1	0		
68	2.10	TO EXPERIENCE THAT MANY INTERNATIONAL STUDENTS FIND THAT LIVING IN THE UNITED STATES CREATES AN AREA OF CONSIDERABLE MALADJUSTMENTS.	20	0-51	3	5	3	10	0	0	0		
66	2.08	TO FEEL THAT THE ACADEMIC ROUTINE IS SO DIFFERENT FROM THOSE AT HOME, THAT I CANNOT ACCEPT THE AMERICAN WAY OF DOING THINGS.	21	0-45	7	4	1	8	1	0	0		
61	2.01	TO REALIZE THAT LIFE IS SO NARROWLY ACADEMIC IN COMPARISON WITH SOCIAL LIFE AND LEISURE TIME ACTIVITIES.	22	0-44	7	3	4	6	1	0	0		
57	1.99	TO REALIZE THAT U.S. AID TO OTHER COUNTRIES IS GIVEN MORE BECAUSE OF UNITED STATES OWN NATIONAL INTEREST.	23	1-72	1	0	2	11	3	1	1		
34	1.80	TO KNOW THAT YOU HAVE TO LOOK FOR AN APARTMENT BY YOURSELF.	24	1-32	0	3	1	14	2	1	0		
50	1.80	TO REALIZE THAT FINANCIAL SUCCESS AS AN OBJECTIVE IN LIFE IS GENERALLY IMPORTANT HERE.	25	1-59	1	2	3	5	2	3	0		



S C A L E V A L U E S                      S T A T E M E N T S                      I T E M - O R D E R E D                      F R E Q U E N C I E S

RANK-CREATED

59	1-76	TO COME TO THE OPINION THAT THE BUSINESSMAN AND MANUFACTURER ARE CONSIDERED MORE IMPORTANT THAN THE ARTIST AND PHILOSOPHER.	26 1-22	1	2	3	4	5	6	7
23	1-72	TO MARRY HIM/HER.	27 1-30	1	5	2	9	4	0	0
16	1-65	TO INVITE HIM TO GO WITH ME ON AN EXTENSIVE TRIP TO ANOTHER COUNTRY.	28 0-47	6	5	2	7	1	C	0
37	1-68	TO BE INVITED BY HIM TO EAT DINNER OF FOOD THAT IS NOT YOUR NATIVE FOOD AND THAT YOU DO NOT LIKE.	29 0-50	7	5	0	5	C	C	0
39	1-62	TO EXPERIENCE THAT YOU JOIN A PARTY AT WHICH STRONG LIQUORS ARE THE ONLY BEVERAGE.	30 0-99	8	1	2	7	1	1	1
25	1-59	TO SHARE AN APARTMENT WITH HIM.	31 0-75	5	4	2	8	2	C	0
7	1-55	TO OPENLY CONVERSE AND DISCLOSE MY PERSONAL FEELING TO HIM.	32 1-42	1	3	5	8	1	3	0
49	1-47	TO REALIZE THAT IN BRINGING UP THEIR CHILDREN, AMERICAN PARENTS USUALLY ALLOW THEM MUCH FREEDOM.	33 2-45	C	C	0	6	7	4	3
32	1-42	TO ACCEPT HIM AS A ROOMMATE.	34 1-80	2	C	3	2	11	3	0
55	1-42	TO NOTICE THAT IN ECONOMIC MATTERS, PEOPLE TEND TO BE AMBITIOUS.	35 2-45	1	1	0	1	6	6	6
8	1-42	TO HAVE HIM AS MY EMPLOYER.	36 0-85	1	13	0	4	2	1	0
17	1-38	TO HAVE HIM TEACH MY CHILDREN.	37 1-68	2	2	2	3	8	2	1
2	1-37	TO HAVE MY DAUGHTER MARRY HIS SON.	38 2-53	0	2	0	4	3	6	6
24	1-32	TO HAVE MY DAUGHTER DATE HIS SON.	39 1-62	2	2	1	7	2	2	2
58	1-32	TO REALIZE THAT THE WAY IN WHICH U.S. FOREIGN POLICY IS CONDUCTED IS USUALLY PENETRATING, CAREFUL.	40 1-11	2	7	4	2	4	2	0
62	1-30	TO SEE THAT AS AN APPROACH TO WORLD COOPERATION AND PEACE, THE UNITED NATIONS IS GENERALLY VIEWED AS A REALISTIC APPROACH.	41 2-32	C	C	2	5	4	8	1
27	1-30	TO ACCEPT HIM AS MY WORK SUPERVISOR.	42 2-25	C	C	0	6	7	7	1
6	1-27	TO RENT A ROOM WITH HIM.	43 2-53	0	1	0	2	4	3	11
26	1-22	TO ACCEPT HIM AS AN INTIMATE FRIEND.	44 3-02	C	C	0	2	7	7	5
1	1-15	TO USE THE SAME DENTIST.	45 2-56	C	0	0	3	12	3	3
40	1-11	TO JOIN A PARTY AT WHICH THE CUSTOMS ARE VERY DIFFERENT THAN YOURS.	46 2-52	0	C	0	4	5	5	2
65	1-05	TO KNOW THAT STUDENTS FROM CERTAIN COUNTRIES BRINGING WIVES THAT ACCOMPANYING THEIR HUSBANDS PERMITS ACQUAINTANCE SEXUAL LIFE.	47 0-37	5	8	4	4	C	C	0
13	1-04	TO DOUBT WITH HIM ON A DATE.	48 -0-01	5	8	1	2	1	C	0
30	0-99	TO OPENLY DISCUSS POLITICS WITH HIM.	49 1-47	0	5	3	6	2	2	1



SCALE VALUES		STATEMENTS		FREQUENCIES																							
RANK-ORDERED		ITEM-ORDERED		1	2	3	4	5	6	7																	
18	0.95	TC INVITE HIM OVER TO WATCH TELEVISION IN MY HOME.	5C	1.80	C	3	3	6	5	2	2																
20	0.91	TO GO BUSINESS WITH HIM.	51	-0.03	9	5	5	2	0	0	0																
36	0.85	TO BE INVITED BY YOUR SPONSOR TO EAT DINNER OF FCCC WITH WHICH YOU ARE NOT FAMILIAR.	52	2.13	0	1	1	4	10	2	0																
19	0.76	TO LIVE NEXT DOOR TO HIM.	53	0.49	9	4	4	1	2	1	0																
21	0.75	TO WORK IN THE SAME OFFICE WITH HIM.	54	3.45	0	C	0	2	3	4	11																
14	0.69	TO HAVE MY CHILDREN GO TO SCHOOL WITH HIS CHILDREN.	55	1.42	0	5	3	6	5	0	1																
9	0.69	TO PERFORM A SERVICE FOR HIM AS PART OF MY JOB.	56	2.77	0	1	0	2	3	7	6																
12	0.67	TO ACCEPT HIM AS A MEMBER OF MY COMMUNITY.	57	1.99	0	2	1	4	7	1	3																
3	0.67	TO BOWL ON THE SAME TEAM WITH HIM.	58	1.22	1	4	3	6	3	0	1																
15	0.64	TO BE SEEN IN PUBLIC WITH HIM.	59	1.76	0	3	3	4	7	2	1																
29	0.50	TC ASK HIM TO JOIN ME FOR LUNCH.	60	2.16	C	1	2	6	6	6	0																
11	0.50	TO ASK HIM TO JOIN A PRIVATE CLUB TO WHICH I BELONG.	61	2.01	C	C	1	9	6	2	1																
53	0.49	TO REALIZE THAT IN THEIR EVERY DAY RELATIONS, PEOPLE TREAT EACH OTHER AS EQUALS.	62	1.30	2	4	5	4	4	1	1																
28	0.47	TO ATTEND A SPORTS ACTIVITY WITH HIM.	63	2.99	0	0	0	4	2	10	5																
21	0.45	TO HAVE MY CHILDREN PLAY WITH HIS CHILDREN.	64	3.57	0	C	0	2	3	2	13																
22	0.44	TO ACCEPT HIM AS MY FAMILY'S FRIEND.	65	2.85	0	0	0	4	4	5	4																
47	0.37	TO KNOW THAT HE/SHE IS ALWAYS STRAIGHT FORWARD.	66	2.08	1	0	0	5	8	3	1																
10	0.28	TO INVITE HIM TO A DINNER PARTY AT MY HOME.	67	0.00	0	C	0	21	C	C	0																
4	0.26	TO HAVE MY CHILDREN TO BE CLOSE FRIENDS WITH HIS CHILDREN.	68	2.10	0	1	0	6	5	2	1																
5	0.21	TO EAT LUNCH AT THE SAME TABLE WITH HIM.	69	1.09	6	2	1	7	1	1	1																
67	0.00	TO EXPERIENCE THAT EATING WITH THE LEFT HAND IS NORMAL IN AMERICA.	70	2.72	0	C	0	4	C	E	3																
48	-0.01	TC EXPERIENCE THAT FREEDOM OF SPEECH, THOUGHT, AND ASSOCIATION IS UNLIMITED.	71	4.74	C	C	0	0	0	0	2	17															
51	-0.03	TC EXPERIENCE THAT STUDENT-PROFESSOR RELATIONS ARE GENERALLY INFORMAL AT NPS.	72	2.73	C	1	0	4	4	4	7																



# APPENDIX J

## SCALE VALUES OF ASIATIC/MIDDLE-EASTERN STUDENTS AT THE NAVAL POSTGRADUATE SCHOOL

SCALE VALUES	STATEMENTS	FREQUENCIES														
RANK-CRDERED	ITFM-CRDEREL	1	2	3	4	5	6	7								
71	3-14	TO HEAR THAT NO ONE IS TAKING CARE OF YOUR FAMILY BACK HOME, WHILE YOU STUDY HERE FOR 2 OR 3 YEARS.	1	1-16	4	6	2	20	1	0	1					
46	2-51	TO EXPERIENCE THAT YOU MUST WAIT FOR 2 HOURS FOR THE BUS TO GO TO THE COMMISSARY WHICH IS 8 MILES OUT OF TOWN.	2	2-70	6	1	1	13	4	4	11					
2	2-70	TO HAVE MY DAUGHTER MARRY HIS SON.	2	0-57	3	10	4	16	1	0	0					
45	2-59	TO EXPERIENCE THAT HE/SHE IS NOT REALLY INTERESTED IN YOUR COUNTRY.	4	0-65	7	12	6	8	0	1	0					
45	2-56	TO FEEL THAT IN LOSING ACADEMIC STATUS MY COLLEAGUES THINK OF ME AS LESS INTELLIGENT THAN DID MY CLASSMATES OR TEACHERS AT HOME.	5	1-01	4	11	4	14	1	0	1					
72	2-45	TO FEEL: DETERIORATION OF INTERNATIONAL RELATIONSHIPS OF YOUR COUNTRY WITH AMERICA, RESULTS IN DEPERSONALIZATION OF FRIENDSHIPS WITH YOUR AMERICAN CLASSMATES.	6	1-77	4	4	3	9	5	7	3					
64	2-41	TO FEEL THAT MOST AMERICANS DO NOT THINK WELL OF MY COUNTRY, BECAUSE THEY FEEL THAT THEY ARE SUPERIOR, AND THEY LET ME KNOW IT.	7	2-03	0	2	8	11	7	4	3					
54	2-34	EXPERIENCE: EXTREMELY DIFFICULT TO RENT AN APARTMENT WHICH ALLOWS CHILDREN, MORE EASIER TO RENT APARTMENTS WITH PETS ALLOWED.	8	1-67	1	2	6	20	2	1	2					
56	2-33	TO REALIZE THAT THE UNITED STATES FOREIGN POLICY TOWARD MY COUNTRY REFLECTS LITTLE UNDERSTANDING.	5	1-37	2	2	7	21	2	1	0					
43	2-22	EXPERIENCE: YOUR FOOD THAT YOU PREPARED WAS VERY HIGHLY PRAISED FOR ITS DELICIOUSNESS BEFORE HE/SHE TRIED IT, AFTER THAT HAVE FOOD BE HARDLY TOUCHED.	10	0-73	8	6	12	9	0	0						
24	2-30	TO HAVE MY DAUGHTER DATE HIS SON.	11	1-24	3	7	9	12	2	1	1					
43	2-25	TO KNOW THAT MY RACE OR FOREIGN APPEARANCE CAUSES LIMITED CONTACTS WITH AMERICANS OR SPECIAL AREAS OF AMERICAN LIFE.	12	0-97	3	7	12	12	1	0						
44	2-27	TO EXPERIENCE THAT YOU CANNOT EXPRESS YOUR OPINION VERY WELL IN CLASS ALTHOUGH YOU KNOW THE ANSWER.	13	1-57	1	7	6	13	5	1	2					
42	2-13	TO EXPERIENCE THAT YOUR FOOD THAT YOU PREPARED WAS HARDLY TOUCHED BY YOUR SPONSOR BECAUSE OF DIFFERENT TASTES.	14	0-77	7	7	8	11	0	1	0					
23	2-05	TO HAVE MY FIM/PER.	15	1-04	6	4	7	15	2	1	0					
37	2-03	TO BE INVITED BY HIM TO EAT DINNER OF FOOD THAT IS NOT YOUR NATIVE FOOD AND THAT YOU DO NOT LIKE.	16	1-55	1	6	8	12	5	3	0					
7	2-03	TO OPENLY CONVERSE AND DISCLOSE MY PERSONAL FEELING TO HIM.	17	1-18	5	7	9	10	2	1	1					
39	2-02	TO EXPERIENCE THAT YOU JOIN A PARTY AT WHICH STRONG DRINKS ARE THE ONLY BEVERAGE.	18	1-49	3	5	4	17	3	2	1					
25	2-01	TO EXPERIENCE THAT YOUR SPONSOR DID NOT CONTACT YOU FOR MORE THAN ONE MONTH.	15	1-23	3	5	2	15	3	2	0					
33	2-00	TO KNOW THAT UPON ARRIVING FOR THE FIRST TIME AT THE AIRPORT, NO ONE IS TO MEET YOU.	20	1-35	1	10	5	12	4	2	0					
38	1-96	TO EXPERIENCE THAT YOU ARE NOT INVITED TO COME IN FIM/PER HOUSE BECAUSE YOU DID NOT MAKE AN APPOINTMENT BEFOREHAND.	21	0-57	3	5	9	11	2	0	0					
60	1-90	TO EXPERIENCE THAT MOST FREE TIME ACTIVITIES TAKE PLACE OUTSIDE THE HOME AND FAMILY.	22	1-02	3	6	10	14	1	0	0					
70	1-90	TO KNOW THAT BRINGING WIVES SOMETIMES CAUSES ISOLATION FROM THE AMERICAN SCENE, ESPECIALLY WHEN WIVES ARE INADEQUATE IN ENGLISH+EDUCATIONAL BACKGROUND.	23	2-09	1	2	3	12	4	5	5					
52	1-88	TO NOTICE THAT WHEN MEETING STRANGERS, MOST PEOPLE HESITATE TO SHOW FRIENDLINESS.	24	2-30	0	0	7	12	4	4	7					
48	1-85	TO EXPERIENCE THAT MANY INTERNATIONAL STUDENTS FIND THAT LIVING IN THE UNITED STATES CREATES AN AREA OF CONSIDERABLE MALADJUSTMENTS.	25	1-84	2	4	1	15	5	7	0					





S C A L E V A L U E S S T A T E M E N T S F R E Q U E N C I E S

RANK-ORDERED

ITEM-ORDERED

59	1.85	TC COME TO THE OPINION THAT THE BUSINESSMAN AND MANUFACTURER ARE CONSIDERED MORE IMPORTANT THAN THE ARTIST AND PHILOSOPHER.	26	1.67	4	7	8	11	3	1	0
58	1.84	TO REALIZE THAT THE WAY IN WHICH U.S. FOREIGN POLICY IS CONDUCTED IS USUALLY PENETRATING, CAREFUL.	27	1.12	2	10	9	11	0	1	1
25	1.84	TO SHARE AN APARTMENT WITH HIM.	28	1.00	3	8	9	12	1	1	0
61	1.81	TO REALIZE THAT LIFE IS SO NARROWLY ACADEMIC IN COMPARISON WITH SOCIAL LIFE AND LEISURE TIME ACTIVITIES.	29	1.30	1	5	12	12	0	0	0
41	1.80	EXPERIENCE: FRIENDLINESS/OPEN MINNEDNESS OF YOUR SPONSOR/WIFE FOR THE 1ST 2-3 MONTHS, BUT THEN HIT BY BIT BECOME	30	1.60	1	11	4	12	3	2	1
66	1.77	TO FEEL THAT THE ACADEMIC ROUTINE IS SO DIFFERENT FROM THOSE AT HOME, THAT I CANNOT ACCEPT THE AMERICAN WAY OF DOING THINGS.	31	1.27	2	5	7	16	0	0	0
6	1.77	TO RENT A ROOM WITH HIM.	32	1.73	0	6	2	13	7	4	1
32	1.73	TO ACCEPT HIM AS A ROOMMATE.	32	2.00	3	2	2	10	8	6	4
57	1.72	TO REALIZE THAT U.S. AID TO OTHER COUNTRIES IS GIVEN MORE BECAUSE OF UNITED STATES OWN NATIONAL INTEREST.	34	1.65	4	1	3	10	15	0	2
8	1.67	TO HAVE HIM AS MY EMPLOYER.	35	2.01	1	2	3	12	10	5	2
40	1.65	TO JOIN A PARTY AT WHICH THE CUSTOMS ARE VERY DIFFERENT THAN YOURS.	36	1.64	0	7	7	15	1	2	3
24	1.65	TC KNOW THAT YOU HAVE TO LOOK FOR AN APARTMENT BY YOURSELF.	37	2.03	0	0	9	13	6	3	4
26	1.64	TO BE INVITED BY YOUR SPONSOR TO EAT DINNER OF FOOD WITH WHICH YOU ARE NOT FAMILIAR.	38	1.56	0	2	7	14	5	3	3
55	1.63	TC NOTICE THAT IN ECONOMIC MATTERS, PEOPLE TEND TO BE AMBITIOUS.	39	2.02	1	2	5	12	7	3	4
62	1.58	TO SEE THAT AS AN APPROACH TO WORLD COOPERATION AND PEACE, THE UNITED NATIONS IS GENERALLY VIEWED AS A REALISTIC APPROACH.	40	1.65	2	6	4	10	7	3	2
13	1.57	TC COULD WITH HIM ON A DATE.	41	1.80	1	2	4	15	5	2	1
16	1.55	TO INVITE HIM TO GO WITH ME ON AN EXTENSIVE TRIP TO ANOTHER COUNTRY.	42	2.13	0	2	2	14	11	2	3
18	1.49	TO INVITE HIM OVER TO WATCH TELEVISION IN MY HOME.	43	2.33	0	2	2	10	6	10	3
47	1.46	TC KNOW THAT HE/SHE IS ALWAYS STRAIGHT FORWARD.	44	2.27	2	3	2	3	8	10	7
67	1.45	TC EXPERIENCE THAT EATING WITH THE LEFT HAND IS NORMAL IN AMERICA.	45	2.55	0	1	1	12	10	4	7
48	1.44	TC EXPERIENCE THAT FREEDOM OF SPEECH, THOUGHT, AND ASSOCIATION IS UNLIMITED.	46	2.51	0	0	2	7	6	8	11
30	1.40	TO OPENLY DISCUSS POLITICS WITH HIM.	47	1.46	3	7	7	12	1	3	2
9	1.27	TO PERFORM A SERVICE FOR HIM AS PART OF MY JOB.	48	1.44	5	8	4	9	4	2	3
20	1.35	TO DO BUSINESS WITH HIM.	49	1.33	0	7	8	15	1	3	0



S C A L E V A L U E S		S T A T E M E N T S		I T E M - C R D E R		F R E Q U E N C I E S						
R A N K - C R D E R												
49	1-33	TC REALIZE THAT IN BRINGING UP THEIR CHILDREN, AMERICAN PARENTS USUALLY ALLOW THEM MUCH FREEDOM.		50	1-26	3	6	9	7	5	1	1
29	1-30	TO ASK HIM TO JOIN ME FOR LUNCH.		51	1-07	2	15	6	6	3	2	0
31	1-27	TO WORK IN THE SAME OFFICE WITH HIM.		52	1-88	0	5	2	16	6	2	3
50	1-26	TC REALIZE THAT FINANCIAL SUCCESS AS AN OBJECTIVE IN LIFE IS GENERALLY IMPORTANT HERE.		53	0-25	5	14	7	4	C	C	0
69	1-24	TC KNOW THAT STUDENTS FROM CERTAIN COUNTRIES BRINGING WIVES THAT ACCOMPANYING THEIR HUSBANDS PERMITS BELONG.		54	2-34	2	3	2	5	2	7	12
11	1-24	TC ASK HIM TO JOIN A PRIVATE CLUB TO WHICH I BELONG.		55	1-63	2	4	6	14	5	3	1
19	1-23	TC LIVE NEXT DOOR TO HIM.		56	2-33	1	1	4	3	13	5	4
17	1-18	TC HAVE HIM TEACH MY CHILDREN.		57	1-12	3	4	3	15	4	3	3
1	1-16	TO USE THE SAME DENTIST.		58	1-84	2	2	4	16	4	2	3
27	1-12	TO ACCEPT HIM AS MY WORK SUPERVISOR.		59	1-85	2	4	5	11	6	3	4
51	1-07	TC EXPERIENCE THAT STUDENT-PROFESSOR RELATIONS ARE GENERALLY INFORMAL AT NPS.		60	1-90	2	3	4	13	5	4	4
26	1-07	TO ACCEPT HIM AS AN INTIMATE FRIEND.		61	1-81	1	3	5	10	8	5	1
15	1-04	TC BE SEEN IN PUBLIC WITH HIM.		62	1-58	2	6	6	12	4	1	3
22	1-02	TC ACCEPT HIM AS MY FAMILY'S FRIEND.		63	2-25	1	1	4	8	6	5	5
5	1-01	TO EAT LUNCH AT THE SAME TABLE WITH HIM.		64	2-41	1	1	2	6	12	5	7
28	1-00	TO ATTEND A SPORTS ACTIVITY WITH HIM.		65	2-56	C	1	2	7	5	8	6
3	C-57	TC ROWL ON THE SAME TEAM WITH HIM.		66	1-77	0	3	4	13	14	1	1
21	C-57	TO HAVE MY CHILDREN PLAY WITH HIS CHILDREN.		67	1-45	2	1	6	23	2	1	0
12	0-57	TC ACCEPT HIM AS A MEMBER OF MY COMMUNITY.		68	1-85	C	0	2	19	5	2	1
14	C-77	TO HAVE MY CHILDREN GO TO SCHOOL WITH HIS CHILDREN.		69	1-24	4	9	3	15	1	2	1
10	C-73	TC INVITE HIM TO A DINNER PARTY AT MY HOME.		70	1-50	2	1	3	13	11	3	2
4	C-65	TO HAVE MY CHILDREN TO BE CLOSE FRIENDS WITH HIS CHILDREN.		71	3-14	C	C	2	3	7	8	14
53	0-25	TC REALIZE THAT IN THEIR EVERY DAY RELATIONS, PEOPLE TREAT EACH OTHER AS EQUALS.		72	2-45	1	C	1	11	5	7	8

776.....END JOB NGANDANI.....END JOB NGANDANI.....END JOB NGANDANI.....END JOB NGANDANI.....  
777.....END JOB NGANDANI.....END JOB NGANDANI.....END JOB NGANDANI.....END JOB NGANDANI.....



## APPENDIX K

INTERNATIONAL STUDENTS AT THE  
NAVAL POSTGRADUATE SCHOOL RESPONSES  
AS AN OUTPUT OF PROGRAM TSCALE MODIFICATION  
TO DETERMINE SEMI-INTERQUARTILE RANGES

PROGRAM T-Scale

PARAMETER CONTROL CARD DECKS. (MAX = 200).  
COL 1-5 = NUMBER OF ITEMS. (MAX = 200).  
COL 6-10 = NUMBER OF JUDGES.  
COL 11-15 = NUMBER OF JUDGEMENT CATEGORIES. (MAX = 11).  
COL 20.1 = PUNCH SCALE VALUES FOR ALL ITEMS.  
COL 20.2 = PUNCH SCALE VALUES FOR ALL ITEMS.  
FORMAT CONTROL CARD SPECIFIES FIELDS FOR ALL ITEMS.  
FACU JUDGE BEGINS A NEW DATA CARD (SERIES).  
TWO KEY CARDS (SHOWN WITH EXAMPLE-PROBLEM DECK) ARE REQUIRED AS INPUT BEFORE TITLE CONTROL CARD OF FIRST PROBLEM.  
SUBPROGRAMS REQUIRED ARE CCDS AND PCDS.

DIMENSION KF(20), Z(97), C(97), NX(11,200), ZX(10,200), KI(200),

```

I V(200) R(200) B(10)
REAL+4 TYPE(72,12) TYPE1(72,26)
REAL TTIME :.6996/

```

```

INTEGER IV(72),1,5.75/  

REAL*4 U(2)/.2,2.75/  

REAL*4 X(7)/1.,3.34,.56,.77/  

READ Z-CARDS, SET UP Z AND PROPORTION VECTORS.

```

```

READ (5,5) (Z(I), I=1,48)
5 FORMAT (14F3.0 / 31F2.0, 3F1.0)

```

LSAVE = 0  
DO 10 I = 1, 48

$$2(I) = 2(I) / 100.0$$
$$10 \quad 2 \quad 1$$
$$2C(1) = 0.025$$
$$C(I) = I + 1$$
$$15 \cdot C\{1\} = C\{9\} = 8.772$$

BEGIN PROBLEM IN  
20 CALL CCDS (K)

DO 25 J = N.I  
RT (J) = N.I

DO 25 I = 1, N

WRIE-16,997

1' ITEM

2//) DO 30 K = 1, N

READ (5,998)  
198 FORMAT (2A4,

DO 91 LL=1, K

IF (K- EQ. 75)

999 FORM I (10-1-77)

$$I = V(J)$$

IF { I I  
EQ: EQ: 00

30 CONTINUE  
 CONVERT FREQUENCY
$$MK = NK = 1$$

$\text{KI}(\text{J})$

DO 50 I = 1

$$CP = NX \sqrt{1 + \frac{F}{CP}}$$

50 CONTINUE

WRITE (6,992) (1,1)

FORMAT ('I')

FORMAT {



15/12/16

DATE = 77000

MAIN

FORTRAN IV G LEVEL 21

```

0052 WRITE (6,991) (J, (ZX(I,J), I=1, HK), J=1, NI)
0053 WRITE (6,993) 25, AND 75 PERCENTILES AND THEIR DIFFERENCE
0054 FORMAT (10, 25%, 75% DIFFERENCE, //)
993 1 // THEN
      DO 60 J=1, NI
      CALL INTRPL (7, X, ZX(1,J), 2, U, V)
      DIFF=V(2)-V(1)
      WRITE (6,994) J, V(1), V(2), DIFF
994  FORMAT (6, 994) J, V(1), V(2), DIFF
      60 CONTINUE
      END

```





```

C.....
SUBROUTINE INTRPL      (CATEGORY E2)
1- IDENTIFICATION:
  A. NAME:  INTERPOLATION OF A SINGLE VALUED FUNCTION
           BASED ON LOCAL PROCEDURES
  B. PROGRAMMER:  HIROSHI AKIMA
  C. IMPLEMENTER: MICHAEL CURCUMAN
  C. DATE:  MARCII, 1973
2- PURPOSE:
  A. THE INTRPL SUBROUTINE INTERPOLATES, FROM VALUES OF THE
    FUNCTION GIVEN AS ORDINATES OF INPUT DATA POINTS IN AN
    X-Y PLANE AND FOR A GIVEN SET OF X VALUES (ABSCISSAS OF
    DESIRED POINTS), THE VALUES OF A SINGLE VALUED FUNCTION
    Y = Y(X).
3- USAGE:
  A. CALLING STATEMENT:
    CALL INTRPL(L,X,Y,N,U,V)
    WHERE THE INPUT PARAMETERS ARE:
    1) L - THE NUMBER OF INPUT DATA POINTS (MUST BE 2 OR MORE)
    2) X - AN ARRAY OF DIMENSION L STORING THE X VALUES
          (ABSCISSAS) OF THE INPUT DATA POINTS IN ASCENDING
          ORDER....X(I+1) > X(I)
    3) Y - AN ARRAY OF DIMENSION L STORING THE Y VALUES
          (ORDINATES) OF THE INPUT DATA POINTS (TYPE REAL*4)
    4) N - THE NUMBER OF POINTS AT WHICH INTERPOLATION OF THE
          Y VALUE (ORDINATE) IS DESIRED (MUST BE ONE OR MORE)
    5) U - THE ARRAY OF DIMENSION N STORING THE X VALUES
          (ABSCISSAS) OF DESIRED POINTS (TYPE REAL*4)
    AND WHERE THE OUTPUT PARAMETER IS
    6) V - THE ARRAY OF DIMENSION N WHERE THE INTERPOLATED
          Y VALUES (ORDINATES) ARE TO BE PLACED
  B. ERROR MESSAGES:
    1) "*** L = 1 OR LESS. N =(17)
        L =(17)
        ERROR DETECTED IN ROUTINE INTRPL" (THE APPROPRIATE
        VALUES ARE PRINTED WHERE FORMATS ARE INDICATED)
    2) "*** N = 0 OR LESS. N =(17)
        L =(17)
        ERROR DETECTED IN ROUTINE INTRPL"
    3) "*** IDENTICAL X VALUES.
        L =(17)
        X(1) =(E12.3)
        N =(17)
        ERROR DETECTED IN ROUTINE INTRPL" ( THE VALUES IN
        THE X ARRAY MUST BE IN STRICT ASCENDING SEQUENCE.)
    4) "*** X VALUES OUT OF SEQUENCE.
        L =(17)
        X(1) =(E12.3)
        I =(17)
        ERROR DETECTED IN ROUTINE INTRPL" ( X(I) < X(I-1) FOR
        SOME I BETWEEN 2 AND L.)
C.....

```



INTR0760  
INTR0770  
INTR0780  
INTR0790  
INTR0800  
INTR0810  
INTR0820  
INTR0830  
INTR0840  
INTR0850  
INTR0860  
INTR0870  
INTR0880  
INTR0890  
INTR0900  
INTR0910  
INTR0920  
INTR0930  
INTR0940  
INTR0950  
INTR0960  
INTR0970  
INTR0980  
INTR0990  
INTR1000  
INTR1010  
INTR1020  
INTR1030  
INTR1040  
INTR1050  
INTR1060  
INTR1070  
INTR1080  
INTR1090  
INTR1100  
INTR1110  
INTR1120  
INTR1130  
INTR1140  
INTR1150  
INTR1160  
INTR1170  
INTR1180  
INTR1190  
INTR1200  
INTR1210  
INTR1220  
INTR1230  
INTR1240  
INTR1250  
INTR1260  
INTR1270  
INTR1280  
INTR1290  
INTR1300  
INTR1310  
INTR1320  
INTR1330  
INTR1340  
INTR1350  
INTR1360  
INTR1370  
INTR1380  
INTR1390  
INTR1400  
INTR1410  
INTR1420  
INTR1430  
INTR1440  
INTR1450  
INTR1460  
INTR1470  
INTR1480  
INTR1490  
INTR1500

4. MODE OF ARITHMETIC:

SINGLE PRECISION

5. REMARKS:

- A. WHEN THE FUNCTION TO BE INTERPOLATED REPRESENTS A PERIODIC FUNCTION AND A SET OF L DATA POINTS COVERS A WHOLE PERIOD, TWO ADDITIONAL DATA POINTS SHOULD BE ADDED AT EACH END AND A SET OF L+4 DATA POINTS SHOULD BE GIVEN AS THE INPUT DATA POINTS TO THIS SUBROUTINE.
- B. CORE REQUIREMENT FOR INTRPL: 2968 BYTES.
- C. NO SUBROUTINES OR FUNCTION SUBPROGRAMS ARE REQUIRED.
- D. FOR THE CONVENIENCE OF THE NPS USER, THE ORIGINAL FORTRAN PROGRAM WAS MODIFIED SLIGHTLY. AN UNNECESSARY INPUT PARAMETER - IU, WHICH DESIGNATED THE CUTOUT DEVICE NUMBER FOR ERROR MESSAGES FROM INTRPL, WAS ELIMINATED FROM THE PARAMETER LIST, AND THE FORTRAN CODE WAS MODIFIED TO CHANNEL ALL ERROR MESSAGES TO THE LINE PRINTER AUTOMATICALLY.

6. METHOD:

THIS ROUTINE IS DEVISED IN SUCH A WAY THAT A CURVE DRAWN THROUGH BOTH THE GIVEN AND INTERPOLATED POINTS WILL APPEAR SMOOTH AND NATURAL, FREE OF UNNATURAL WIGGLES. IT IS BASED ON A PIECEWISE FUNCTION COMPOSED OF A SET OF POLYNOMIALS EACH OF DEGREE THREE, AT MOST, AND APPLICABLE TO SUCCESSIVE INTERVALS OF THE GIVEN POINTS. IN THIS METHOD, THE SLOPE OF THE CURVE IS DETERMINED AT EACH GIVEN POINT LOCALLY, AND EACH POLYNOMIAL REPRESENTING A PORTION OF THE CURVE, BETWEEN A PAIR OF GIVEN POINTS IS DETERMINED BY THE COORDINATES OF THE POINTS AND THE SLOPES AT THE POINTS. COMPARISONS INDICATE THAT THE CURVE OBTAINED BY THIS METHOD IS CLOSER TO A MANUALLY DRAWN CURVE THAN THOSE DRAWN BY OTHER MATHEMATICAL METHODS...

A DETAILED EXPLANATION OF THE METHOD CAN BE FOUND IN THE OCTOBER 1970 ISSUE, JOURNAL OF THE ACM, PAGE 589, ENTITLED: "A NEW METHOD OF INTERPOLATION AND SMOOTH CURVE FITTING BASED ON LOCAL PROCEDURES", BY HIROSHI AKIMA.

A DESCRIPTION OF THE ALGORITHM USED PLUS THE ORIGINAL FORTRAN PROGRAM IS GIVEN IN THE OCTOBER 1972 ISSUE, COMMUNICATIONS OF THE ACM, PAGE 914, ENTITLED: "INTERPOLATION AND SMOOTH CURVE FITTING BASED ON LOCAL PROCEDURES", BY HIROSHI AKIMA.

.....

SUBROUTINE INTRPL(L,X,Y,N,IU,V)  
INTERPOLATION OF A SINGLE-VALUED FUNCTION OF THE FUNCTION  
THIS SUBROUTINE INTERPOLATES, FROM VALUES OF THE FUNCTION  
GIVEN AS ORIGINATES OF INPUT DATA POINTS IN AN X-Y PLANE  
AND FOR A GIVEN SET OF X VALUES (ABSCISSAS), THE VALUES OF  
A SINGLE-VALUED FUNCTION  $Y = f(X)$ .  
THE INPUT PARAMETERS ARE  
L = NUMBER OF INPUT DATA POINTS  
(MUST BE 2 OR GREATER)  
X = ARRAY OF DIMENSION L STORING THE X VALUES  
(ABSCISSAS) OF INPUT DATA POINTS  
(IN ASCENDING ORDER)  
Y = ARRAY OF DIMENSION L STORING THE Y VALUES  
(ORDINATES) OF INPUT DATA POINTS  
N = NUMBER OF POINTS AT WHICH INTERPOLATION OF THE  
Y VALUE (ORDINATE) IS DESIRED  
(MUST BE 1 OR GREATER)  
IU = ARRAY OF DIMENSION N STORING THE X VALUES  
(ABSCISSAS) OF DESIRED POINTS  
THE CUTOUT PARAMETER IS



```

C V = ARRAY OF DIMENSION N WHERE THE INTERPOLATED Y
C VALUES (ORDINATES) ARE TO BE DISPLAYED
C DECLARATION STATEMENTS
C IMENSION X(L),Y(L),U(N),V(N)
C ECLIVALENCE (PO,X3),(CO,Y3),(Q1,T3)
C REAL M1,M2,M3,M4,M5
C EQUIVALENCE (UK,DX),(IMN,X2,A1,M1),(IMX,X5,A5,M5),
C (J,SW,SA),(Y2,W2,M4,C2),(Y5,W3,C3)
C PRELIMINARY PROCESSING
C LC=L
C LM1=L0-1
C LM2=LM1-1
C LPI=L0+1
C NO=N
C IF (LM2.LT.0) GO TO 90
C IF (NO.LE.0) GO TO 91
C CC 11 I=2,L0
C IF (X(I-1)-X(1)) 11,95,96
C II CONTINUE
C IFV=0
C MAIN EC-LOOP
C CC 80 K=1,NO
C UK=UK(N)
C ROUTINE TO LOCATE THE DESIRED PCINT
20 IF (LM2.EQ.0) GO TO 27
C IF (UK.GE.X(L0)) GO TO 26
C IF (UK.LT.X(1)) GO TO 25
C IMN=2
C IMX=L0
C I=(IMN+IMX)/2
C IF (UK.GE.X(I)) GO TO 23
C IMX=I
C GC TO 24
C IMN=I+1
C IF (IMX.GT.IMN) GO TO 21
C I=IPX
C GC TO 30
C I=1
C GC TO 30
C I=LPI
C GC TO 30
C I=2
C GC TO 30
C CHECK IF I = IPV GO TO 70
30 IF (I.EQ.IPV)
C ROUTINES TO PICK UP NECESSARY X AND Y VALUES AND
C TO ESTIMATE THEM IF NECESSARY
C 40 J=1
C IF (J.EQ.1) J=2
C IF (J.EQ.LPI) J=L0
C X3=X(J-1)
C Y3=Y(J-1)
C X4=X(J)
C Y4=Y(J)
C A3=(Y4-Y3)/A3
C IF (LM2.EQ.0)
C IF (J.EQ.2)
C X2=X(J-2)
C Y2=Y(J-2)
C A2=X3-X2
C M2=(Y3-Y2)/A2
C IF (J.EQ.L0)
C X5=X(J+1)
C Y5=Y(J+1)
C A4=X5-X4
C M4=(Y5-Y4)/A4
C IF (J.EQ.2)
C GO TO 45
C M4=M3+M3-M2
C GC TO 45
C M2=M3
C 41
C 42
C 43
C 45
C IF (J.LE.3)
C A1=X2-X(J-3)

```

```

INIR1510
INIR1520
INIR1530
INIR1540
INIR1550
INIR1560
INIR1570
INIR1580
INIR1590
INIR1600
INIR1610
INIR1620
INIR1630
INIR1640
INIR1650
INIR1660
INIR1670
INIR1680
INIR1690
INIR1700
INIR1710
INIR1720
INIR1730
INIR1740
INIR1750
INIR1760
INIR1770
INIR1780
INIR1790
INIR1800
INIR1810
INIR1820
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INIR1900
INIR1910
INIR1920
INIR1930
INIR1940
INIR1950
INIR1960
INIR1970
INIR1980
INIR1990
INIR2000
INIR2010
INIR2020
INIR2030
INIR2040
INIR2050
INIR2060
INIR2070
INIR2080
INIR2090
INIR2100
INIR2110
INIR2120
INIR2130
INIR2140
INIR2150
INIR2160
INIR2170
INIR2180
INIR2190
INIR2200
INIR2210
INIR2220
INIR2230
INIR2240
INIR2250

```



```

46 M1=(Y2-Y(J-3))/A1
47 GO TO 47
M1=M2*M2-M3
IF(J.GE.LM1) GO TO 48
A5=X(J+2)-X5
M5=(Y(J+2)-Y5)/A5
GO TO 50
M5=M4*M4-M3
C NUMERICAL DIFFERENTIATION
50 IF(I.EQ.LP1) GO TO 52
M2=ABS(M4-M3)
M3=ABS(M2-M1)
SW=M2*M3
IF(SW.NE.0.0) GO TO 51
M2=C.5
M3=0.5
51 S4=1.-C
T2=(M2*M2+M3*M3)/SW
IF(I.EQ.LP1) GO TO 54
M3=ABS(M5-M4)
M4=ABS(M3-M2)
SW=M3*M4
IF(SW.NE.0.0) GO TO 53
M3=0.5
M4=0.5
53 S4=1.0
T4=(M3*M3+M4*M4)/SW
IF(I.NE.LP1) GO TO 60
T3=T4
SA=A2+A3
T4=0.5*(M4+M5-A2*(A2-A3)*(M2-M3)/(SA*SA))
X3=X4
Y3=Y4
A3=A2
M3=M4
GO TO 60
54 SA=A3+A4
T3=0.5*(M1+M2-A4*(A3-A4)*(M3-M4)/(SA*SA))
X3=X3-A4
Y3=Y3-M2*A4
A3=A4
M3=M2
C DETERMINATION OF THE COEFFICIENTS
60 Q2=(2.0*(M3-T3)+M3-T4)/A3
C3=(-M3-M3*T3+T4)/(A3*A3)
C COMPUTATION OF THE POLYNOMIAL
70 CX=UK-PQ
80 V(K)=Q0+DX*(Q1+DX*(Q2+DX*C3))
C ERROR EXIT
5C WRITE (6,2090)
GO TO 95
91 WRITE (6,2091)
55 WRITE (6,2095)
56 WRITE (6,2096)
57 WRITE (6,2097)
59 WRITE (6,2099)
RETURN
C FCMPAT STATEMENTS
205C FCMPAT(IX/22H *** L = 1 OR LESS./)
2091 FCMPAT(IX/22H *** N = 0 OR LESS./)
2055 FCMPAT(IX/27H *** IDENTICAL X VALUES./)
2056 FCMPAT(IX/33H *** X VALUES CUT OF SEQUENCE./)
2057 FCMPAT(6H I = 17,10X,6HX(1) =,E12.3)
2059 FCMPAT(6H I = 17,10X,3HN =,17/
1 ENC
36H ERROR DETECTED IN ROUTINE INTFPL)

```





ITEM	CUMULATIVE PROPORTIONS			
1	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000
31	0.0000	0.0000	0.0000	0.0000
32	0.0000	0.0000	0.0000	0.0000
33	0.0000	0.0000	0.0000	0.0000
34	0.0000	0.0000	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000
36	0.0000	0.0000	0.0000	0.0000
37	0.0000	0.0000	0.0000	0.0000
38	0.0000	0.0000	0.0000	0.0000
39	0.0000	0.0000	0.0000	0.0000
40	0.0000	0.0000	0.0000	0.0000
41	0.0000	0.0000	0.0000	0.0000
42	0.0000	0.0000	0.0000	0.0000
43	0.0000	0.0000	0.0000	0.0000
44	0.0000	0.0000	0.0000	0.0000
45	0.0000	0.0000	0.0000	0.0000
46	0.0000	0.0000	0.0000	0.0000
47	0.0000	0.0000	0.0000	0.0000
48	0.0000	0.0000	0.0000	0.0000
49	0.0000	0.0000	0.0000	0.0000
50	0.0000	0.0000	0.0000	0.0000
51	0.0000	0.0000	0.0000	0.0000
52	0.0000	0.0000	0.0000	0.0000
53	0.0000	0.0000	0.0000	0.0000
54	0.0000	0.0000	0.0000	0.0000
55	0.0000	0.0000	0.0000	0.0000
56	0.0000	0.0000	0.0000	0.0000
57	0.0000	0.0000	0.0000	0.0000
58	0.0000	0.0000	0.0000	0.0000
59	0.0000	0.0000	0.0000	0.0000
60	0.0000	0.0000	0.0000	0.0000
61	0.0000	0.0000	0.0000	0.0000
62	0.0000	0.0000	0.0000	0.0000
63	0.0000	0.0000	0.0000	0.0000
64	0.0000	0.0000	0.0000	0.0000
65	0.0000	0.0000	0.0000	0.0000
66	0.0000	0.0000	0.0000	0.0000
67	0.0000	0.0000	0.0000	0.0000
68	0.0000	0.0000	0.0000	0.0000
69	0.0000	0.0000	0.0000	0.0000
70	0.0000	0.0000	0.0000	0.0000
71	0.0000	0.0000	0.0000	0.0000
72	0.0000	0.0000	0.0000	0.0000



25 AND 75 PERCENTILES AND THEIR DIFFERENCE  
ITEM 25% 75% DIFFERENCE

1	0.05	0.13	0.08
2	-0.05	0.08	-0.02
3	-0.07	0.22	0.13
4	0.01	0.16	0.15
5	0.02	0.07	0.16
6	0.07	0.06	0.05
7	0.07	0.08	-0.01
8	0.06	0.08	0.01
9	-0.16	0.25	0.09
10	-0.13	0.16	0.18
11	-0.03	0.05	0.08
12	-0.19	0.27	0.08
13	0.04	0.19	0.04
14	0.15	0.05	0.01
15	0.04	0.12	0.14
16	0.00	0.06	0.12
17	-0.09	0.08	0.14
18	-0.06	0.02	0.17
19	-0.15	0.16	0.14
20	0.01	0.12	0.11
21	0.01	0.05	-0.01
22	0.04	0.03	-0.02
23	-0.04	0.01	0.08
24	-0.04	0.06	0.10
25	-0.11	0.01	0.12
26	-0.08	0.06	0.14
27	-0.09	0.06	0.15
28	-0.00	0.12	0.11
29	-0.01	0.05	0.10
30	-0.05	0.01	0.05
31	-0.00	0.02	-0.02
32	-0.10	0.09	-0.01
33	-0.24	0.00	-0.03
34	-0.10	0.07	-0.08
35	-0.01	0.01	-0.04
36	-0.01	0.02	0.01
37	-0.04	0.03	0.01
38	-0.02	0.01	0.01
39	-0.04	0.02	0.02
40	0.00	0.01	0.01
41	0.00	0.02	0.03
42	0.00	0.02	0.01
43	0.03	0.02	0.01
44	0.00	0.01	0.01
45	0.00	0.02	0.01
46	0.00	0.14	0.14
47	0.08	0.21	0.16
48	-0.20	0.04	0.08
49	-0.04	0.19	0.24
50	-0.04	0.03	0.07
51	-0.11	0.01	0.02
52	-0.05	0.01	0.05
53	-0.02	0.02	0.07
54	-0.00	0.02	0.02
55	-0.01	0.03	0.04
56	-0.05	0.01	-0.01
57	-0.03	0.01	-0.01
58	-0.01	0.01	-0.01
59	-0.01	0.01	-0.01
60	-0.01	0.01	-0.01
61	-0.01	0.01	-0.01
62	-0.01	0.01	-0.01
63	-0.01	0.01	-0.01
64	-0.01	0.01	-0.01
65	-0.01	0.01	-0.01
66	-0.01	0.01	-0.01
67	-0.01	0.01	-0.01
68	-0.01	0.01	-0.01
69	-0.01	0.01	-0.01
70	-0.01	0.01	-0.01
71	-0.01	0.01	-0.01
72	-0.01	0.01	-0.01

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## APPENDIX L

### GROUPINGS OF STATEMENTS AND SCALE-VALUES OF INTERNATIONAL STUDENTS AT THE NAVAL POSTGRADUATE SCHOOL ACCORDING TO THREE THEMES IN AMERICAN LIFE

In The following table shows the three groupings of the statements, stated in their respective statement numbers (see Appendix E) and their respective scale-values as responses from the international students at the Naval Postgraduate School:

#### Group A (Depth of Inter-personal Relationships)

<u>Statement No.</u>	<u>Scale Value</u>	<u>Statement No.</u>	<u>Scale Value</u>
46	2.71	41	1.98
64	2.65	68	1.95
72	2.60	52	1.90
65	2.53	61	1.88
56	2.51	66	1.85
54	2.45	68	1.73
45	2.42	37	1.67
63	2.40	39	1.66
44	2.40	25	1.64
43	2.36	32	1.58
38	2.19	34	1.57
70	2.17	6	1.52
33	2.11	62	1.48
42	2.04	16	1.41
35	2.01	13	1.28



Group A (Continued)

<u>Statement No.</u>	<u>Scale Value</u>	<u>Statement No.</u>	<u>Scale Value</u>
40	1.28	31	0.89
8	1.21	29	0.85
9	1.18	3	0.83
18	1.18	69	0.80
1	1.14	15	0.77
30	1.12	12	0.75
36	1.07	5	0.75
26	1.07	28	0.74
27	1.06	22	0.64
17	1.05	14	0.59
20	0.99	4	0.53
11	0.92	21	0.53
19	0.91	10	0.51

Group B (Social Status)

<u>Statement No.</u>	<u>Scale Value</u>	<u>Statement No.</u>	<u>Scale Value</u>
2	2.17	49	1.35
24	1.90	47	1.04
23	1.90	48	0.73
60	1.76	51	0.53
7	1.47	53	0.36
67	1.41		

Group C (Materialism)

<u>Statement No.</u>	<u>Scale Value</u>	<u>Statement No.</u>	<u>Scale Value</u>
57	1.86	55	1.62
59	1.77	50	1.48





# APPENDIX M

## COMPARISON BETWEEN THE PERCEPTIONS OF WESTERN AND INDONESIAN STUDENTS TOWARD AMERICAN CULTURE (BOTH GROUPS ARE FROM THE NAVAL POSTGRADUATE SCHOOL)

### Group A (Depth of Inter-personal Relationships)

<u>Statement No.</u>	<u>Western Scale Value</u>	<u>Indonesian Scale Value</u>
38	2.53	1.60
33	2.49	1.70
42	2.25	2.01
68	2.10	2.00
61	2.01	1.69
58	1.32	1.81
6	1.27	1.52
13	1.04	0.87
8	1.42	1.52
1	1.15	1.22
26	1.22	0.95
19	0.76	1.00
15	0.64	1.04
22	0.44	0.95
14	0.69	0.63
10	0.28	0.55
46	2.52	2.61
64	3.57	2.25
65	2.85	2.30
45	2.56	2.62
43	2.93	2.11



Group B (Social Status)

<u>Statement No.</u>	<u>Western Scale Value</u>	<u>Indonesian Scale Value</u>
7	1.55	2.00
67	0.00	1.24
53	0.49	0.08

Group C (Materialism)

<u>Statement No.</u>	<u>Western Scale Value</u>	<u>Indonesian Scale Value</u>
55	1.42	1.59
Mean Value A	1.72	1.57
Mean Value B	0.68	1.11
Mean Value C	1.42	1.59



APPENDIX N  
SPLIT-HALF RELIABILITY TEST

<u>Item</u>	<u>First Half Scale Values</u>	<u>Second Half Scale Values</u>
1	1.11	.97
2	2.10	2.08
3	1.39	.71
4	.66	.41
5	.96	.51
6	1.56	1.47
7	1.60	1.36
8	1.40	1.03
9	1.42	.87
10	.64	.27
11	1.15	.61
12	.98	.61
13	1.17	1.18
14	.73	.46
15	1.09	.77
16	1.50	1.25
17	1.25	.97
18	1.13	1.20
19	1.06	.76
20	1.13	.89
21	.68	.50
22	.72	.74



<u>Item</u>	<u>First Half Scale Values</u>	<u>Second Half Scale Values</u>
23	1.80	1.97
24	1.74	1.88
25	1.80	1.43
26	1.12	1.03
27	1.15	.94
28	.86	.65
29	1.07	.71
30	1.47	.71
31	1.17	.72
32	1.59	1.48
33	2.07	2.25
34	1.57	1.62
35	2.47	1.74
36	1.38	.74
37	2.07	1.38
38	2.29	2.07
39	1.77	1.58
40	1.54	1.11
41	1.97	1.99
42	1.94	1.98
43	2.61	2.19
44	2.41	2.56
45	2.54	2.04
46	2.56	2.61
47	1.08	.98
48	1.00	.29





<u>Item</u>	<u>First Half Scale Values</u>	<u>Second Half Scale Values</u>
49	1.25	1.26
50	1.61	1.40
51	.62	.43
52	1.86	1.99
53	.20	.41
54	2.50	2.49
55	1.71	1.63
56	2.48	2.45
57	1.98	1.76
58	1.70	1.81
59	1.83	1.73
60	1.90	1.66
61	1.97	1.93
62	1.46	1.61
63	2.38	2.44
64	2.65	2.65
65	2.64	2.32
66	2.07	1.76
67	1.52	1.90
68	2.25	1.93
69	1.03	.64
70	2.21	2.12
71	3.31	3.24
72	2.60	2.56



Spearman Correlation Coefficient: .9396

Significance level : .001

Items : 72



## APPENDIX O

### REGROUPING OF THE FINAL LIST IN THE DEPTH OF INTER-PERSONAL RELATIONSHIPS, SOCIAL STATUS, AND MATERIALISM

#### Group A (Depth of Inter-personal Relationships)

<u>Statement No.</u>	<u>Scale Value</u>	<u>Statement No.</u>	<u>Scale Value</u>
38	2.19	19	0.91
33	2.11	15	0.77
42	2.04	22	0.64
68	1.95	14	0.59
61	1.88	10	0.51
58	1.73	46	2.71
6	1.52	64	2.65
13	1.28	65	2.53
8	1.21	45	2.42
1	1.14	43	2.63
26	1.07		

The mean value is  $34.48/21 = 1.64$

#### Group B (Social Status)

<u>Statement No.</u>	<u>Scale Value</u>	<u>Statement No.</u>	<u>Scale Value</u>
7	1.47	53	0.36
67	1.41		

The mean value is  $3.24/3 = 1.08$

#### Group C (Materialism)

<u>Statement No.</u>	<u>Scale Value</u>
55	1.62



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